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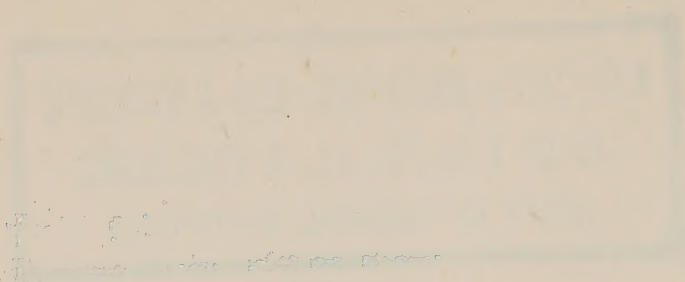
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(DEPT OF MEDICAL STATISTICS)









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JOURNAL (DEPT OF MEDICAL STATISTICS)

OF THE

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# QUARTERLY JOURNAL

OF THE

## STATISTICAL SOCIETY.

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MARCH, 1860.

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*On the RATE of WAGES in MANCHESTER and SALFORD, and the MANUFACTURING DISTRICTS of LANCASHIRE, 1839-59. By DAVID CHADWICK, Treasurer, of Salford.*

[Read before the Statistical Society, 20th December, 1859.]

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### I.—*Introduction.*

WHILST the most exact statistical returns have been regularly compiled, in regard to nearly all departments of trade, those relating to the rate of *Wages* have been comparatively neglected.

This is mainly owing to the general disinclination which exists amongst employers of labour, to furnish the requisite information, and the equally strong objections which the operatives themselves appear to entertain in regard to all inquiries submitted to them on the subject.

All writers on the subject of Wages have acknowledged the great difficulties which have beset their investigations and enquiries,\* and these difficulties have, in the present case, been increased by the determination to record the “number of hours of labour,” along with the average amount of wages in each trade.

In attempting, in compliance with the request of Mr. Newmarch, on behalf of the Statistical Society, and of Mr. Fleming, on behalf of

\* Mr. G. R. Porter says “No one, unless he shall have made the attempt to obtain information as to the rate of wages, can be aware of the difficulties opposed to his success.”



the Manchester Chamber of Commerce, to supply the required statistical information as to the rate of wages in the manufacturing district of Manchester, I have not spared either time or labour to arrive at correct and reliable results.

In the first instance I issued a large number of circulars and printed forms of returns, to the principal employers in the various trades, asking for the information required; but I received replies only from less than 10 per cent. of the number applied to. These circulars were then followed up by written notes, and further blank returns, and by personal applications to the masters, and also to the operatives in the various trades. I succeeded after much trouble in obtaining a large number of returns, presenting in some cases very various results. From the most reliable of these returns, after carefully arranging and collating them, and further personal enquiries, I have deduced the average wages paid in each trade and occupation.

It frequently happens that, men engaged in the same occupations do not obtain the same wages, although not paid by piece work; thus "fitters" in a machine and tool works may receive from 25s. to 42s. per week, but taking the whole body of men, including those employed in the millwright and machinery branches, 31s. per week is found to be their average earnings (in 1859) for the usual week's work of fifty-eight hours.

In stating the earnings of persons engaged in trades where the wages are reckoned by *piece work*, such as spinners, weavers, tailors, hatters, coal miners, and a large number of other trades, and where it is evident that the actual earnings of each workman depends very much upon his individual skill and activity, I have collated the whole of the returns obtained, and deduced the average result each year, for the number of hours specified as the ordinary amount of a week's labour.

There may, therefore, be found in all such trades, many instances in which the wages are below, and many where the wages are higher than the average here stated.

In all those trades where the number of hours of labour per week, and the amount of wages are fixed by Trades' Unions, without any reference to the skill or amount of work done by each workman, such as bricklayers, masons, &c., the exact weekly earnings are stated in the returns.

I shall not attempt to discuss the various questions of political economy, touching the effect which the supply of, and demand for, labour, has had in the various trades, but shall confine myself generally to a statement of the *actual average net weekly earnings* in each trade, and to the simple record of any extraordinary circumstances or facts affecting the rise or fall of the rate of wages in some of the principal branches of trade.

In order to make the returns as exact as possible, I have confined the enquiry to the Wages of *adult persons*, excepting only in those cases where young persons form a very large portion of the total number engaged in any important branch of work.

The inquiry has been extended, where practicable, over a period of *twenty years*, and the results are recorded in the three decennial periods of 1839, 1849, and 1859. The number of hours labour per week, has been stated, in order to facilitate a comparison of the actual remuneration in each trade. But it should be remembered that in some trades it is not possible for the workmen, however steady and industrious, to make a full week's work every week in the year.

The subject may be divided into the following general heads, viz. :—

- |   |   |
|---|---|
| (1.) Cotton Manufacturing Trades.             | (5.) Miscellaneous Trades.                          |
| (2.) Silk and other Manufacturing Trades.     | (6.) Coal Mining.                                   |
| (3.) Building Trades.                         | (7.) Agricultural Labourers.                        |
| (4.) Mechanical Trades and Workers in Metals. | (8.) Mercantile, Office, and Warehouse Occupations. |

## II.—*Cotton Manufactures.*

The workpeople employed in the various branches of Cotton Manufacture have been classified under the names by which they are known amongst their fellow-workpeople and their employers.

In an ordinary Cotton Mill of moderate size the various operations may be classified as follows :—

- |                                    |                              |
|------------------------------------|------------------------------|
| 1. Steam-engine, men, porters, &c. | 5. Throstle spinning.        |
| 2. Cotton mixing, and blowing.     | 6. Spinning upon hand mules. |
| 3. Carding, and preparing.         | 7. Power loom weaving.       |
| 4. Self-acting mule spinning.      |                              |

Before referring to the wages paid to the workpeople in the various branches above-named, it may be useful to state briefly the various processes which a bale of Cotton undergoes in a Manchester Cotton Mill.

The processes are as follows :—

*The Mixing and Blowing Room.*—In this room the various bales of cotton are assorted, and layers from each alternately placed on one large heap, so that when used all will be of an equality in colour and length of fibre.

The cotton is then taken to a machine called the “willow,” or “opener.” This process loosens the fibre, and frees it from seed and dirt, and makes it ready for the “scutcher” and “lap” machines. The scutcher and lap machines perform further processes of cleansing, and when the cotton is discharged by the latter it is in the form of a continuous *fleece* or lap, coiled upon a roller, and is then ready to be placed on the carding engine.

*Card Room.*—In this room the carding engine still further cleanses the cotton, and arranges the fibres of the cotton in a longitudinal direction, and delivers it in a “sliver,” which is not unlike a soft flat rope. The sliver is then taken to the “drawing frame,” the object of which is, by repeated “doublings” and “drawings,” to produce perfect equality in the thickness of the sliver and the



length of fibres. Eight slivers are joined together, elongated by the operation of fluted rollers, and drawn into one, thus producing what is technically known as a "*doubling of 8.*" This operation is repeated twice in the drawing frame. The slivers delivered by the second drawing frame, each consist of 64 single slivers, and those delivered by the third drawing frame consist each of 512 single slivers.

The sliver is next taken to the "*slubbing frame,*" and is there considerably reduced in thickness by attenuation, one yard being usually increased in length to six yards. During this process the sliver undergoes the first twisting operation, after which it is wound on a bobbin, it is then taken to an "*intermediate frame,*" or "*second slubber,*" in which the slivers from two bobbins are drawn into one, thus repeating the slubbing operation of twisting and again distending each double thread to six times its length.

These processes have, consequently up to this stage, doubled or combined 1,024 single slivers into one.

The product of the slubbing frame is next taken to the roving frame, where the doubling, drawing, and twisting operations are further continued. The roving which is delivered being a combination of 2,048 single slivers, and further attenuated so as to be suitable for the operation of spinning.

*Spinning Rooms.*—These rooms consist of two departments, the mule rooms, and the throstle room. Mule yarn is produced in the cop, and is the *weft* or breadth part of cloth when woven.

Throstle yarn is spun on bobbins, and afterwards wound, warped, sized, beamed, and twisted. When used in weaving it is the warp or longitudinal part of the cloth.

Mule yarn, with extra twist, is also often used for warps, and known as *mule twist*, to distinguish it from *water twist*, the produce of the throstle frames.

*Doubling Rooms.*—When mule yarns are intended for making lace thread, or for making mixed woollen, and cotton fabrics, from 2 to 30 threads are twisted together by the doubling frame,—the produce being what is known as "*doubled yarn.*"

*Weaving Room.*—The mule yarns (as weft) and the throstle yarns (as warp) are placed in the power loom, and woven into calico cloth.

*Warehouse.*—The cloth is taken into the warehouse and examined by the cutlooker to detect any defects, and is then measured and folded in a plaiting machine, and afterwards pressed in bundles ready for the merchant's warehouse for bleaching or for dyeing.

The value of *Cotton Yarns* depends upon their *fineness*, which in the trade is technically called "*counts,*" and as the wages of the operative spinner are to a considerable extent regulated by the fineness or coarseness of the counts of yarn he spins, I have thought it desirable to give a brief description of the method of determining the "*counts*" in the various kinds of spinning.

A *hank* of yarn consists of 840 yards wound on a reel of 54 inches (or  $1\frac{1}{2}$  yards) circumference, divided into 7 *leas* of 120 yards each.

The reel ( $1\frac{1}{2}$  yards round) has on its axis a worm which turns a wheel of eighty teeth, so that one revolution of the wheel indicates that 120 yards have been wound on the reel. By means of a pin in the worm wheel, the guide for the ends is moved half an inch, until 7 leas of 120 yards each, are wound on the reel, thus forming a complete hank.

If this "*hank*" of 840 yards weighed one pound, the "*yarn*" would be "*ones,*"—if eight ounces it would be "*twos,*"—and if two ounces it would be "*eights,*"—if one fortieth of a pound it would be "*fortys,*" and so on.

Yarns of the No. 200's being of such a degree of fineness that one hank of 840 yards, weighs only  $\frac{1}{200}$ th part of a pound; 200 of such hanks containing 168,000 yards of thread, would therefore weigh only one pound.

A *bundle* of yarn either twist or weft, consists of ten pounds weight of yarn of any quality.

The average wages of the workpeople in each of the above departments are given in Tables M, N, O, and P, in the Appendix.

The following table exhibits the proportionate number of men, women, boys, and girls, in a Cotton Mill employing 500 persons, and the average amount of the wages paid weekly to each class in 1859.

(A.)—Proportion and Wages of ADULTS and CHILDREN in a COTTON MILL of 500 Workers.

CLASS OF WORK.	Men.	Women.	Boys.	Girls.	Total.
	No.	No.	No.	No.	No.
1. Stokers, engineers, lodge-keepers, and warehousemen, mechanics, and porters.....	20	2	5	—	27
2. Cotton mixing and blowing	7	—	1	—	8
3. Carding .....	17	36	4	15	72
4. Self-acting mule spinning .....	24	—	10	1	35
5. Throstle spinning, winding and warping .....	7	39	12	11	69
7. Power loom weavers .....	10	173	—	92	275
8. Beaming, twisting, and sizing .....	10	1	1	2	14
	95	251	33	121	500
Average of Total Wages of Workers in ALL departments taken together.....	£ 87 17 6	£ 127 11 10	£ 11 11 —	£ 30 5 —	£ 257 5 4
Average Wages to each Person .....	— 18 6	— 10 2	— 7 —	— 5 —	— 10 3½

It will be seen that of the total number 19 per cent. are *Men* :— 50·2 per cent. *Women* :—6·6 per cent. *Boys* :—and 24·2 per cent. *Girls*.

The Wages of nearly all classes of Factory operatives appear to have *increased* from 10 to 25 *per cent.* during the last twenty years. This is mainly owing to the improvements in the construction of the machinery and the *increased speed* at which it is now worked, and its consequently increased productive power.

Mr. Henry Ashworth, of Bolton, has estimated that “before 1842 the operative spinner’s wages for the production of 20 lbs. of yarn, No. 70’s, on a pair of mules of 400 spindles each, was 4*s.* 7*d.* (or 2¾*d.* per lb.), and at this rate his net earnings amounted to about 20*s.* per week ; and that in 1859, with the improvements effected in the spinning mule, by which each machine carries 800 spindles, the same workman, with a little extra assistance by piecers (boys) can earn 30*s.* 10*d.* per week net, although the amount he receives in wages for 20 lbs. of yarn, is reduced from 4*s.* 7*d.* to 3*s.* 11¼*d.*, or 2·36 per lb.”



The reduced cost upon the production of a week by the working of a pair of mules with 800 spindles each (instead of 400 each) amounts to 1*l.* 3*s.* 10*d.*, which is shared in the following proportions, viz.: to the operative 10*s.* 10*d.*, leaving 13*s.* for extra aid, the reduction of price to the consumer, and interest on additional capital, and profit to the master.

Mr. Ashworth states that the average rate of wages of a *spinner* on a pair of unimproved mules of 400 spindles each, in producing No. 70's yarn, has been as follows:—

(B.)—*Spinners' Average Wages, 1842-59.*

Year.	Per 20 lbs.	Gross Earnings Per Week.	Piecer's Wages Per Week.	Net.
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
1842.....	4 7	36 -	16 -	20 -
1846.....	4 11	38 -	16 -	22 -
1850.....	4 4	35 6	16 -	19 6
1859.....	5 1	41 -	16 -	25 -

The same workman, with a pair of “double deckers” with 1,600 spindles, and more piecers now earns

				Net.
1859.....	3 <i>s.</i> 11½ <i>d.</i>	.....	59 <i>s.</i> 10 <i>d.</i>	.....
			29 <i>s.</i>	.....
				30 <i>s.</i> 10 <i>d.</i>

The following were the Numbers of Persons as per census returns in 1851, employed in the Cotton, Silk, and Woollen Manufactures in *Lancashire*. The Census Returns before 1851 do not distinguish these classes.

(C.)—*Census, 1851.—Occupations.—Lancashire.*

Cotton, (all branches) <i>males</i> 154,000, <i>females</i> 157,000	....	Total	311,000
Silk (upwards of one-half being <i>female</i> )	.....	,,	11,397
Woollen	.....		7,144
Total			329,541

Cotton Factories are generally very clean, well ventilated, and healthy.\* The labour of the various persons consists mainly in watching and directing the operations of the various machines, the placing of the material in the machines, the “tenting” or watching the processes, the “piecing” or tying of loose ends or threads, the stopping of the machinery to repair defects in the processes, and the removal of the finished products in the various stages of manufacture.

\* It is hoped that the Census Returns for 1861 will particularly specify the number of persons engaged in the various branches of the Cotton Trade, and also the rates of mortality as compared with other trades.

It cannot, therefore, be considered very laborious work for even Women or Children; and the amount of their earnings, and the comparatively agreeable nature of the occupations, present a constant temptation for girls and young women to enter the factory rather than engage in domestic service.

Mr. Nassau W. Senior, in referring to the general construction, division of labour, and completeness of a Cotton Mill, says:—

“A ship of the line under full sail has been called the noblest exhibition of human power; it is, perhaps, the most beautiful; but if dominion over matter, if the power of directing inanimate substances, at the same time to exert the most tremendous energy and to perform the most delicate operations, be the test,—that dominion and power are nowhere so strikingly shown as in a large Cotton Factory.”

Of the 2,046 Cotton Factories in England and Wales in 1856, no fewer than 1,480 were situated in Lancashire, and from the Reports of the Factory Commissioners it appears that on an examination of 50,000 workpeople in the county of Lancaster, 83 per cent. of those engaged in the cotton and other manufacturing operations could read, but only 38 per cent. could write.

Mr. Bazley, M.P., has calculated that the value of Cotton Manufactures consumed in the United Kingdom and Ireland, was equal in 1853 to 15s. 5d. per person, reckoning the population at 27,512,000. And that the value of cotton goods manufactured in Great Britain, and consumed in the various countries of the world to which British Commerce has extended, is 1s. 2 $\frac{3}{4}$ d. per man, woman, and child on the estimated population of 878 millions of persons.

Since the passing of the Ten Hours Factory Act, in June, 1847, various restrictions have been placed upon the employment of young persons in Cotton Mills, and the actual labour per week of all adult persons has been limited to 60 *hours*:—before the passing of the Factory Act the average labour per week was 69 *hours*.

Notwithstanding these restrictions the Cotton Trade has increased in a most extraordinary manner since that time, which is no doubt mainly owing to the repeal of the Corn Laws in June, 1846, and to the “*speeding*” of the machinery.

The continually increasing demand for Cotton goods by the extension of commerce, (as shown in table S. in the Appendix,) has been quite equal to the increased supply, hence the wages of all classes engaged in the trade have been maintained, and in many cases advanced to the extent before mentioned.

The extraordinary increase in the amount of Cotton goods exported during the last two years to India, and the opening out of the markets to China, Japan, and other countries, afford a reasonable prospect of the present rate of wages in the Cotton Manufactures being permanently maintained.



The valuable tables (*see* Appendix), of Mr. A. W. Fonblanque, of the Board of Trade, show that the *Imports of Raw Cotton* into the United Kingdom *increased* from 646 million lbs. in 1844 to 1,034 million lbs. in 1858; whilst the value of the Exports of Cotton Manufactured Goods and Cotton twist and yarn increased from 26 millions sterling in 1844 to 43 millions sterling in 1858.

Such an Extension of one branch of Trade in fourteen years may, I think, be pronounced unparalleled in the history of any country in the world.

I have not attempted to obtain any accurate account of the number of *New Mills* and Works in Lancashire, required for this vast increase of production nor of the great numbers of persons who have been attracted to the Cotton Trades by the high rates of wages, and the regularity of the employment; but I feel assured that we may fairly estimate the number of persons in Lancashire directly engaged in the various branches of the Cotton Trade in 1859, at 400,000 persons.

The Parliamentary Return (V) in the Appendix gives the total number of persons employed in Cotton Factories in 1856 in England and Wales at 341,170. This does not include the persons who are employed at their own homes, and since that time the number of new mills has been very considerable. It is stated that at this time there are twenty-eight new cotton mills in Blackburn and its neighbourhood now in course of erection.

The amount paid for wages to these 400,000 persons in Lancashire at the present average rate of 10s. 3½d. per week as per Return before given, would amount to 205,833*l.* per week, or 10,653,000*l.* per annum.

The number of spindles and power looms now employed in cotton spinning and manufacturing in Lancashire, may be estimated at 28 millions spindles, and 300,000 looms.

It has been estimated\* that the cost of a spinning mill and all the requisite preparing machinery, is from 23*s.* to 24*s.* per spindle, and of a weaving establishment 24*l.* per loom: and that the value of the present mills and machinery is 18*s.* per spindle and 20*l.* per loom.

The Capital now invested in Lancashire, in cotton mills and machinery, and working stock, may be estimated at 52 Millions sterling, viz.:—

	£
28 million spindles at 18 <i>s.</i> each .....	25,200,000
300,000 looms at 24 <i>l.</i> each .....	7,200,000
Estimated value of materials and stock, of manufactured goods, and of working capital .....	20,000,000
	<hr/>
	52,400,000

---

\* Mr. Alderman Baynes' Lectures at Blackburn.

The tables in the Appendix, extracted from Parliamentary Returns, and from the last edition of the "Encyclopædia Britannica," to 1856, and compiled by me, as far as possible, up to 1859, will afford further interesting information in relation to the extension of the Cotton Manufacture.

Although the Cotton Trade generally at this time is in a highly prosperous condition, the large and constant supply of the raw material being fully equal to the demands of the manufacturers, it frequently occurs that the price of Cotton Wool for long periods bears no fixed relation to the selling price of Yarn and Cloth; and as it is neither possible nor desirable that the wages of the operatives (which are generally very regular and permanent), should fluctuate with the master's profits, it sometimes occurs, and has done even within the last two years, that nearly every manufacturer in the Cotton Trade has been manufacturing and selling his goods for several months continuously at a certain loss on every pound of yarn and every yard of cloth he has produced.

From the Return (EE) in the appendix it will be seen that the prices of Cotton, Yarn, and Cloth were as follows:—

	Raw Cotton.		Yarn, per lb.	Power loom Cloth, 40 in 66 Reeds.	
	d.	d.	d.	s.	d.
December, 1857 .....	6 $\frac{1}{4}$	@ 7 $\frac{9}{16}$	9 $\frac{5}{8}$	8	9
November, 1859 .....	7 $\frac{3}{8}$	„ 8 $\frac{5}{8}$	11 $\frac{3}{4}$	10	9

The tables in the Appendix, relating to the Cotton Manufacture, (stated in a note below,\*) exhibit the following interesting facts.

The *Imports* of Cotton into the United Kingdom have increased from 261,000 bags in 1806, to 2,282,000 bags in 1859.

The *Consumption* of Cotton has increased from 252,000 bags in 1806, to 2,290,000 bags in 1859.

The quantity of Cotton imported has increased from 646 million lbs. in 1844, to 1,034 million lbs. in 1858.

The declared real value of Cotton Manufactures *exported* has increased from 18,814,000*l.* in 1844, to 33,421,000*l.* in 1858.

\* (S.)—Value of cotton manufactures exported, and quantities of raw cotton imported, into the United Kingdom, from 1844 to 1858.

(T.)—Imports of cotton, in bags, from 1806 to 1859.

(U.)—Consumption of cotton, in bags, from 1806 to 1859.

(V.)—Number of factories, number of power looms, and number of persons employed, &c., in cotton factories from 1838 to 1856.

(W.)—Number of Power Looms—1836-56.

(X.)—Number of Factories—1838-56.

(Y.)—Prices of cotton from 1818 to 1859.

(Z.)—Comparative statement of the cost of producing cotton yarns in England and in India, from 1812 to 1854, &c.

(EE.)—Average prices of cotton, yarn, cloth, and wheat, in Manchester from 1850 to 1859, and rates of discount.



The estimated number, in 1856, of *Cotton Factories*, was 2,210,—of spindles, 28 millions,—of power looms, 299,000,—of steam and water power, 97,000 horses,—and of persons employed in Cotton Factories, 379,000.

The number of Cotton, Woollen, Worsted, Flax, and Silk *Mills* was, in 1838, 4,217, and in 1856, 5,117. The number of *Power Looms* was, in 1836, 115,793, and in 1856, 369,205.

The extreme prices of Raw Cotton have ranged from 1818 to 1859 from 4s. to 9½d. per lb. for “Sea Island” and from 1s. 9d. to 4d. per lb. for “Orleans.”

The cost of producing Cotton Yarns in India (the original seat of Cotton Manufactures) is exactly the same now as it was in 1812, whilst in England the cost has been *reduced* 63 per cent., or to nearly one-third of the cost in 1812.

	1812.	1830.	1858.
	s. d.	s. d.	s. d.
Cost per lb. of Cotton Yarns made } in England, No. 40's .....	2 6	1 2½	0 11
Cost per lb. of Cotton Yarns made } in India, No. 40's .....	3 7	3 7	3 7

### III.—*Silk and other Manufacturing Trades.*

The average wages of all persons employed in the *Silk Trade* are at the present time (1859) not less than 10 per cent. higher than they were in 1839 and 1849.

These advances have in all cases been conceded by the masters without any strike. As soon as the demand for their labour equalled or exceeded the supply, an increase of wages was generally made throughout the trade, the effect of which has been to prevent those employed in it seeking other occupations, and to induce some of those who had left it, to return to the Silk Trade.

*In Calico Printing, Dyeing, and Bleaching*, the wages of several classes of workmen have declined, where the regularity and fixed nature of the work have tended to remove the operations from the class of *skilled* to that of *unskilled* labour.

Where the long use of an improved machine has rendered the nature of its management more generally known, as in the case of “machine printers,” the wages have fallen from 40s. to 35s.

The wages of block printers have declined from 40s. to 28s., in consequence of the demand for their labour having, to a great extent, been superseded by machine printing. Many of the colours and

designs in calico printing which were formerly printed by hand blocks, are now done by machine.

The improvements in "machine printing" have been so great, that it is now a very common practice to print *six* and *eight colours* by one machine; and improvements have recently been made by which as many as sixteen and twenty colours can be printed in elaborate patterns at one operation.

The following table relates to the—

(D.)—SILK and other Manufacturing Trades.

WORK.	1839.		1849.		1859.	
	Hours Weekly.	Wages.	Hours Weekly.	Wages.	Hours Weekly.	Wages.
		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
(I.) SILK THROWING AND MANUFACTURING.						
Mill men and throwsters ...	66	14 -	60	14 -	60	17 -
Overlookers.....	"	19 -	"	19 -	"	22 -
Spinners (young men & boys)	"	7 6	"	7 6	"	10 -
Winders (women) .....	"	6 6	"	6 6	"	7 -
Cleaners (women and girls)..	"	5 -	"	5 -	"	6 -
Doublers (women) .....	"	7 6	"	7 6	"	8 9
Warpers (men) .....	"	21 -	"	21 -	"	24 -
Weavers ,, .....	"	18 -	"	18 -	"	20 -
(II.) FLAX SPINNING.						
Mechanics .....	60	28 -	60	28 -	60	28 -
Preparers (girls) .....	"	8 -	"	7 -	"	6 9
Spinners ,, .....	"	8 -	"	7 -	"	7 -
(III.) CALICO PRINTING, DYEING, AND BLEACHING.						
Colour mixer .....	60	35 -	60	30 -	60	32 -
Machine printers.....	"	40 -	"	35 -	"	38 -
Foreman .....	"	40 -	"	40 -	"	40 -
Block cutters .....	"	35 -	"	25 -	"	25 -
Block printers.....	"	40 -	"	28 -	"	28 -
Dyers .....	"	18 -	"	16 -	"	16 -
Washers .....	"	16 -	"	16 -	"	16 -
Labourers : .....	"	15 -	"	15 -	"	15 -
(IV.) SILK DYEING AND PRINTING.						
Dyers and helpers .....	60	15 -	60	15 -	60	15 -
Silk dyeing and printing.....	"	16 -	"	16 -	"	16 -
(V.) FUSTIAN DYEING, &c.						
Dressers .....	61	18 -	61	22 -	61	22 -
Bleachers.....	"	21 -	"	18 -	"	18 -
Dyers .....	"	21 -	"	16 -	"	16 -
Finishers .....	"	21 -	"	21 -	"	22 -



IV.—*The Building Trades.*

The returns of these trades show a remarkable increase in the wages, and a considerable reduction in the hours of labour.

As the strike and lock-out in the Building Trades in London during the last two months have rendered the information as to the condition and remuneration of this class of workmen in Lancashire peculiarly interesting, great pains have been taken to make the returns on this subject full and exact.

The wages and number of hours work per week of each trade at the three periods, were as follows:—

(E.)—BUILDING TRADES, *Wages and Hours of Work per Week, 1839-59.*

TRADES.	1839.		1849.		1859.	
	Time.	Wages.	Time.	Wages.	Time.	Wages.
	Hours.	s. d.	Hours.	s. d.	Hours.	s. d.
(I.) BRICKLAYERS.						
6 months' summer .....	60	27 -	57½	30 -	55½	33 -
6 months' winter.....	53	27 -	50	27 -	50	30 -
(II.) BRICKLAYERS' LABOURERS.						
6 months' summer .....	60	18 -	57½	18 -	55½	21 -
6 months' winter .....	53	18 -	50	18 -	50	18 -
(III.) STONEMASONS.						
6 months' summer .....	60	26 -	57½	28 6	55½	30 -
6 months' winter.....	53	24 -	50	26 -	50	27 -
(IV.) STONEMASONS' LABOURERS.						
6 months' summer .....	60	17 -	57½	18 -	55½	18 -
6 months' winter.....	53	17 -	50	17 -	50	17 -
(V.) SLATERS.						
6 months' summer .....	60	22 -	57½	24 -	58	26 -
6 month's winter.....	53	22 -	50	24 -	50	26 -
(VI.) SLATERS' LABOURERS.						
6 months' summer .....	60	16 -	57½	18 -	58	18 -
6 months' winter.....	53	16 -	50	18 -	50	18 -
(VII.) PLUMBERS.						
6 months' summer .....	60	27 -	60	28 -	56	28 -
6 months' winter.....	54	27 -	54	28 -	50	28
(VIII.) PLASTERERS.						
6 months' summer .....	60	26 -	60	26 -	58	28 -
6 months' winter.....	53	26 -	53	26 -	53½	28 -
(IX.) PAINTERS.						
6 months' summer .....	60	24 -	60	26 -	58	28 -
6 months' winter.....	53	24 -	53	26 -	53½	28 -
(X.) JOINERS.						
6 months' summer .....	60	26 -	58	28 -	58	28 -
6 months' winter.....	55	26 -	55	28 -	55	28 -

The statement in the foregoing Return, that the wages in summer of *bricklayers* have increased from 27*s.* for 60 hours, to 33*s.* for 55½ hours, does not convey a definite idea of the actual advance. I have, therefore, calculated the rates of wages and the percentage of increase per hour, as shown in Table F.

(F.)—BUILDING TRADES.—*Rates of Wages per Hour (IN SUMMER), 1839-59.*

TRADES.	1839.	1849.	1859.	Amount per hour of increase from 1839 to 1859.
	Per hour. <i>d.</i>	Per hour. <i>d.</i>	Per hour. <i>d.</i>	Per hour. <i>d.</i>
Bricklayers .....	5·24	6·26	7·13	1·89 or 36 per cent.
„ labourers ....	3·6	3·75	4·54	·94 or 26 „
Masons .....	5·2	5·94	6·48	1·28 or 24·61 „
„ labourers .....	3·4	3·75	3·89	·49 or 14·41 „
Slaters .....	4·4	4·66	5·37	·97 or 22 „
„ labourers .....	3·2	3·75	3·73	·53 or 16·56 „
Plumbers .....	5·4	5·6	6·	·6 or 11·11 „
Plasterers .....	5·2	5·2	5·79	·59 or 11·34 „
Painters .....	4·8	5·2	5·79	·99 or 20·60 „
Joiners .....	5·2	5·79	5·79	·59 or 11·34 „

The increase of wages in the above trades during the last twenty years, has, therefore, been from 11 to 36 *per cent.*

The actual wages and hours of work of *Bricklayers* and *Masons* each day are fixed by Trades' Union, as follows:—

(G.)—*Bricklayers and Masons IN SUMMER (17th March to 16th November), Trades' Union Rules.*

Days.	Hours.	Rest for Meals.	Actual Work.	Day's Wage.	
		Hours.	Hours.	<i>s.</i>	<i>d.</i>
Monday .....	7 a.m. to 6 p.m.	2	9	5	6
Tuesday .....	6 a.m. to 6 p.m.	2	10	6	—
Wednesday .....	„ „	2	10	6	—
Thursday .....	„ „	2	10	6	—
Friday .....	„ „	2	10	6	—
Saturday .....	„ „	½	6½	3	6
			55½	33	—



## IN WINTER (17th November to 17th March).

		s.	d.
Monday .....	8½ hours work.	Day's wage 5	—
Tuesday .....	9 „	„ 5	6
Wednesday .....	9 „	„ 5	6
Thursday .....	9 „	„ 5	6
Friday .....	9 „	„ 5	6
Saturday .....	5½ „	„ 3	—
	50 hours.	Wk's. wage 30	—

The labourers are paid—

		s.	d.
In Summer for .....	55½ hours .....	21	—
In Winter for .....	50 „ .....	18	—

In reckoning the time worked, the Trades' Union Committee fix upon some public clock or building as the centre or starting point in each district, as near as possible to the office or general workshop of each master.

The time occupied by the men walking *to* their employment each day is reckoned as work: thus for jobs situated—

1 mile from the central starting point they reckon	⅓ of an hour
2 „ „ „	⅔ „
3 „ „ „	1 hour.

The time spent in walking back *from* jobs is not charged as work to the master, excepting on Saturdays, when the men all cease work so as to be able to walk back to their master's office or works by 1 p.m.

The rules of the “Trade” require that for all *overtime* worked the men must be paid at the rate of “*time and half*,” or at the rate of 50 per cent. additional wages: and when required to work overtime on *Saturday nights* or *Sundays*, “*double time*,”—or double the usual rate of payment.

No workman is allowed to take any work “by measurement” or by “contract,” with the view, as stated in the “Trade Rules,” of preventing “task work,” &c.; and it is added that “any member committing any breach of this order, will incur the severest penalties without mitigation.”

An excellent rule prohibits the payment of men in public-houses, and entitles them to charge for any time they may be kept waiting for their wages more than one hour.

The use of “moulded bricks” for arches, &c., is strictly prohibited.

The "Rule" in regard to apprentices, is as follows:—

"That no employer shall be permitted to have more than one apprentice at one time, except in cases when an apprentice is in the last year of his servitude, then such employer may have a second apprentice."

This rule, and the further restrictions of a similar kind, have had the effect of preventing many of the masters taking any apprentices.

The source for obtaining an increased supply of skilled labour in this trade is therefore to a great extent restricted; and this fact has already given rise to serious apprehensions as to the possibility of being able to meet the increased demand for labour in the Building Trades, which the present prosperity of the manufacturing districts is now causing.

#### V.—*Brickmaking Trade.*

The following table exhibits the wages in this trade:—

(H.)—*Building Trades.—Brickmaking and Sawyers.*

TRADE.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
<b>I. Brickmakers.</b>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
Moulders ..... <i>Summer</i>	70	42 —	70	42 —	70	50 —
„ daywork, Winter....	50	18 —	50	18 —	50	21 —
Tempering .....	70	42 —	70	42 —	70	50 —
„ daywork, Winter....	50	18 —	50	18 —	50	21 —
Burning .....	70	42 —	70	42 —	70	50 —
„ daywork, Winter....	50	18 —	50	18 —	50	21 —
Wheeling .....	70	42 —	70	42 —	70	50 —
„ daywork, Winter....	50	18 —	50	18 —	50	21 —
<b>II. Steam Sawyers.....</b>	59	26 —	59	26 —	59	26 —

Nearly all the operations in *Brickmaking* are paid for by piece-work, the prices for which are settled by the Operative Brickmakers' Association, who have hitherto succeeded in obtaining all their demands, and in preventing the introduction of any machines for brickmaking into the trade.

Prior to 1849 the prices paid for the various kinds of work had remained stationary. In that year a small advance was demanded and conceded. The price fixed for moulding, tempering, wheeling, and burning being 1*s.* 8*d.* per thousand.

In September, 1853, a further increase was demanded and en-



forced. The Operative Brickmakers' Society then issued a circular "to the Master Brickmakers of Manchester and Salford, and their "Vicinity," in which they say that "having known of strikes, and "provisions being dear, and in consequence of the laborious nature "of their employment, they asked for an advance of wages according "to the following scale, viz. :—

(I.)—*Brickmaking—Continued.*

	Per 1,000 (being an advance of 4d. per 1,000.)		s. d.
		Wheeling .....	2 -
		Burning .....	2 -
	s. d.	Carrying off .....	- 10
Moulding .....	2 -	Walling .....	- 10
Tempering .....	2 -	Casting and Feaying .....	1 5

Day-work to be paid at 3s. 6d. per day."

Many of the large and old established brickmakers have, since 1853, given up business, and a considerable number of small masters have commenced business, who in some cases continue to be members of, and pay to the Operatives' Society.

A moulder will make on an average 25,000 bricks per week, or 500,000 during the summer season, reckoning 20 weeks. The temperer, wheeler, and burner can each do the same amount of work. Their wages, at the two periods before and after 1853, were, therefore, as follows :—

(K.)—*Average Wages for 20 Weeks at the Rate of 25,000 Bricks Weekly.*

	1839-53.	1853-59.
Temperer .....	s. d.	s. d.
Moulder .....	42 -	50 -
Wheeler .....		
Burner .....		
Daywork.....	3 -	3 6

It is estimated that men employed in this trade cannot work more than 45 weeks in the year, in consequence of rain and frost. At this rate the result would be as follows, as regards their

(L.)—*Average Yearly Earnings before and since 1853.*

		s. d.	£ s.
Before September 1853.	20 weeks Summer @ 42 -	=	42 -
"	25 ,, Winter @ 18 -	=	22 10
	45		
Average earnings 24s. 8d. per week } or yearly £64 10			
for 52 weeks }			
		s. d.	£ s.
Since September 1853.	20 weeks Summer @ 50 -	=	50 -
"	25 ,, Winter @ 21 -	=	26 5
	45		
Average earnings 29s. 4d. per week } or yearly £76 5			
for 52 weeks }			

VI.—*Mechanical Trades, &c.*

The Rate of Wages in nearly all branches of mechanical employment has increased during the last twenty years from 5 to 45 per cent. The removal of the duty on the exportation of machinery, and the constant extensions in the various manufacturers, the making of steam boilers, and latterly of iron ships and tubular bridges, having caused a constantly increasing demand for this class of skilled labour.

The Wages of Pattern Makers and Smiths have been advanced from 30s. to 32s.; of Brass Founders from 30s. to 34s.; and of Boilermakers from 22s. to 32s. per week. The value of steam engines and machinery exported in 1858 was 3,599,000*l*.

*Engravers to Calico Printers.*

The wages of several of the branches in this trade have declined, in consequence of the processes which were comparatively new, and consequently required careful and highly skilled workmen twenty years ago, having become now comparatively common and easy.

The wages of hand engravers have declined from 42s. to 35s.; diemakers from 58s. to 48s.; and eccentric engravers from 45s. to 36s.

*Boot and Shoemaking.*

The wages of workmen in this trade have increased since 1839; the bootclosers from 26s. to 32s.; and the bootmakers from 22s. to 25s.

The introduction of the "Sewing Machine" seems to have given general satisfaction to both masters and men. The export trade has been rapidly increased, and the production has not yet equalled the demand which the cheapening of certain processes by the introduction of the sewing machines has occasioned.

*Tailors.*

In this trade all the work is paid for by the piece, and there is no limitation to the hours of labour. Although the return shows that the week's labour is considered to be 72 hours, a considerable portion of the workmen still adhere to the pernicious custom of abstaining from work the whole or a part of Mondays; and very often work fifteen or more hours during each of the last two or three days of the week.

The sewing machine has been extensively introduced for the "slop," ready-made, and export trade, and has caused an increased demand more than equal to the manual labour it has displaced; and hence the price of labour has suffered no reduction, and full employment at present generally prevails.



The value of clothing, apparel, and slops exported in the year 1858 was 1,943,000*l*.

### *Bakers.*

The workmen in this trade work longer, and at more irregular times, and are worse paid than the generality of other trades.

### *Coal Mining.*

The wages paid in this trade are at the highest rate which they ever attained. Nearly all the workmen are paid by piecework.

In 1846-7 there was a general strike of the Coal Miners throughout the Lancashire District, which continued for thirty-two weeks.

At the end of this time the workmen were compelled to resume their occupations at less wages than they received at the time of the strike. A large number of fresh men having been attracted from other Colliery Districts, and from other occupations, the "supply" of labour had thereby become greater than the "demand."

For two years after the strike the rates of wages, in consequence of the over supply of labour, were gradually reduced, till in 1849 they attained their lowest point, and since that time successive advances have been made without any strikes, till they have now again reached the highest rates ever before paid.

The average time per week worked by coal miners is 50 hours; the laborious nature of their occupation has been of late years very greatly lessened by the general introduction of "tramways" and the improved machinery, ventilation and appliances in every department, whereby the comfort and health of the workmen have also been much improved.

Large Collieries usually employ men to perform all the work required in their various departments.

One firm (Messrs. Andrew Knowles and Son), who are the proprietors and workers of several extensive coal-pits in Manchester and the neighbourhood, employ upwards of 3,000 workpeople, consisting of about 2,200 miners, drawers, jiggers, firemen, drivers, tunnelers, and other underground workers; and above 800 other persons, consisting of managers, clerks, underlookers, engineers, firemen, fillers, blacksmiths, joiners, wheelwrights, masons, bricksetters, sawyers, boilermakers, saddlers, boatmen, boatbuilders, carters, &c.

### *Agricultural Operations.*

The average rate of wages of men employed in Agricultural pursuits has not varied during the last twenty years.

The amount of wages earned by this class of men is high, when compared with the wages in agricultural districts where there is no competition for employments connected with manufactures.

Within a radius of ten miles of Manchester the wages of agricultural labourers for 60 hours per week has averaged 15s. per week.

The usual hours of work are from 6 a.m. to 6 p.m., with one hour for dinner, half-an-hour for breakfast, and half-an-hour for lunch or tea.

When farm labourers live in the house they usually receive 6s. per week, in addition to their board and lodging, which is reckoned worth 9s. per week.

During harvest time, and for all extra work, the men are paid as far as practicable by piece work.

All men are paid extra for overtime, excepting those who receive regular wages all the year round, without any deductions for loss of time in winter or bad weather; such men in harvest time have no extra payment, excepting the food and refreshments usually provided on such occasions.

The average rate of wages for farm labourers in districts from 10 to 20 miles from Manchester, is 14s. per week.

#### VII.—*General Remarks.*

The results of the present inquiry prove that a large proportion of the operative classes in the various branches of trade, are receiving more wages at the present time than they have done during the last twenty years; and there appears good reason to expect that the prosperity now prevailing is likely to be more than usually permanent.

It may be safely affirmed that the *low prices* of Provisions and Clothing, together with the *high rate* of Wages, and the facilities for education and mental culture now existing, have placed within the reach of the working classes more physical comforts and the means of obtaining more social and intellectual enjoyment than at any previous period.

To prove these propositions, it is only requisite to peruse attentively the rates of wages paid to the various trades as set forth under the eight heads included in the returns herewith presented.

(1.) In the *Cotton Trade* the *advance* of wages has averaged from 10 to 25 *per cent.* during the twenty years 1839-59.

(2.) In the *Silk Trade* an advance of wages has taken place in all the branches equal to more than 10 per cent.

(3.) In *Calico Printing, Dyeing, and Bleaching*, and in *Silk and Fustian Dyeing*, a decline in wages has occurred in those branches which no longer require any special or peculiar skill; and also in the higher class of skilled workmen, such as "*Machine Printers*;" but the wages of this class now range from 25s. to 50s. per week, the average rate being 38s.



(4.) In the *Building Trades* the *increase* in the rate of wages during the twenty years, has averaged from 11 to 32 *per cent*.

(5.) In the *Mechanical Trades* there has been a general advance in nearly all branches. In some instances this advance is equal to 45 *per cent*.

A reduction has occurred in the high wages formerly paid to brass moulders (now 30s.); and to engravers, to calico printers, though the wages of the latter now range from 25s. to 48s. per week.

(6.) In the *Miscellaneous Trades*, including upwards of eighty classes of workmen, the rate of wages has generally been maintained, and in some cases has been considerably advanced. Where reductions have occurred, they will be found to arise mainly from the following causes:—

(a.) Where the demand for the article has declined, and the supply of labour has become superabundant, as in beaver hat making, block cutters and printers, in calico printing; paper-hanging-manufacturing, &c.

(b.) Where the improvements in machinery, although creating permanent employment to a much larger number of persons at equal or even increased wages, may have reduced the value of the product of the labour of a class of workmen whose wages may consequently have declined. This was illustrated in a remarkable degree in the case of hand loom weavers of calico (a trade which is now almost extinct) and the substitution of power loom weaving. The same effect is now being accomplished in the case of the substitution of *machine* printing of calico, and of paper hangings for hand printing, &c.

The wages of workmen in every trade have invariably decreased, where the supply of labour has exceeded the demand.

In like manner the wages of the workmen have been invariably maintained or increased where the *demand* has equalled or exceeded the *supply*. The advance of wages, in the great majority of the cases, has been directly occasioned by *improvements of machinery*, whereby the increased production has lessened the cost, and thereby caused a largely increased *demand*.

This is shown in a remarkable manner in the cotton trade, the extraordinary extension of which (as illustrated in the tables in the Appendix) is entirely owing to the cheapening of the means of production. But the remarkable case of the large advance of wages in the building trades, presents a peculiar exception to that of other trades.

The operatives in these trades by restricting the number of apprentices and other arbitrary regulations, have *prevented* the *supply* of labour from being equal to the *demand*, and thereby enhanced its value.

The Table DD. is a carefully prepared statement of the amount expended in food, clothing, &c., by a working man with a wife and three children, whose earnings average 30s. per week,—as compared with the cost of the same in 1849 and 1839.

This return shows that out of an average income of 30s. per week, 20s. 6½*d.*, or rather more than *two-thirds* are expended in *provisions*, leaving 9s. 5½*d.*, or rather less than *one-third* for clothing, rent, and sundries. It also shows that the same articles of provisions which in 1859, cost 20s. 6½*d.*, would in 1849 have cost 1*l.* 1s. 5½*d.*, and in 1839 1*l.* 4s. 7*d.*, being a reduction in the cost of provisions of the same quality and quantity during the twenty years, of 4s. ½*d.* or 20 per cent., or nearly 14 per cent. on the amount of his average income.

This reduction arises principally from the repeal of the Corn Laws and the reduction of the duties upon tea, coffee, sugar, and soap.

The Return CC. shows that the number of depositors in the Manchester and Salford Savings' Bank, was 11,700 in 1839; 24,700 in 1849; and 45,447 in 1859. That the amount of deposits remaining in the bank was in 1839, 331,000*l.*, in 1849, 614,000*l.*, and in 1859, 1,160,085*l.* The increase in the number of depositors and the amount deposited, may, to a great extent, be ascribed to the improved resources and the extension of provident habits amongst the working classes in the district generally.

I believe it is admitted by the great mass of the intelligent working men, that their physical and social position has much improved during the last twenty years: and it is hoped that the continued progress of sanitary improvements in rendering their "homes" more healthy, will further greatly contribute to this result.

As a body they are now much better educated, and are much less addicted to the sin of drunkenness; they have much greater self-respect and intelligence; and if they have not more political privileges, they have more real independence, and are in every other respect elevated and improved as compared with their position twenty years ago.

The Return AA. gives the population and rate of increase in England and Wales as compared with the county of Lancaster and the Manchester and Salford district. The rate of increase of the population in each of the five decennial periods from 1801 to 1851, shows an average of 15 *per cent.* for England and Wales, 28 per cent. for the county of Lancaster, and 33 per cent. for the Manchester and Salford districts.

The population of the county of Lancaster was, in 1801, only 7.56 per cent. of the total population of England and Wales; in 1831 it was 9.61 per cent., and in 1851 it was 11.32 per cent.,



or more than *one-ninth* of the whole population of England and Wales.

In conclusion, I beg to express my obligations to Mr. Bazley, M.P., Mr. Henry Ashworth, of Bolton, Mr. David Morris, and Mr. Foxcroft, for their kindness in supplying me with information in regard to Cotton Manufactures, and to many other friends for assistance in obtaining the returns of various other trades.

Since the completion of the paper, I have had the opportunity of submitting to a large meeting of Operatives in Manchester, the Returns of the Rates of Wages in the various Trades; and although I much regretted to find that some of the leading members of Trades' Unions attempted to deny the existence and operation of the *law* of Political Economy in regard to *Supply* and *Demand* governing the *price* of LABOUR, as well as of all *materials* and *products*; it was particularly gratifying to find that with one slight exception, they acknowledged the fairness and correctness of the returns in all respects.

*Note.*—In continuation of Table D, at page 11, we annex the following facts relating to the—

*Silk Trade, 1839-59.*

TRADE.	1839.	1849.	1859.
	66½ Hours per Week.	60 Hours per Week.	60 Hours per Week.
	s. d.	s. d.	s. d.
SILK THROWING AND MANUFACTURING.			
Overlookers.....	24 -	24 -	26 -
Millmen (throwsters) .....	13 -	13 -	17 -
Spinners (young men and boys)	7 6	7 6	10 -
Winders ( <i>women</i> ) .....	6 6	6 6	7 6
Cleaners ( <i>girls &amp; young women</i> )	5 -	5 -	6 -
Doublers ( <i>women</i> ) .....	7 6	7 6	8 9
Warpers (men) .....	—	—	—
Weavers „ .....	18 -	18 -	20 -

## APPENDIX OF TABLES.

(M.)—Average Return of Weekly Wages.—COTTON MANUFACTURES.

Name of Trade.	1839.		1849.		1859.	
	Hours, Weekly.	Net Earnings.	Hours, Weekly.	Net Earnings.	Hours, Weekly.	Net Earnings.
(I.) COTTON MANUFACTURE.	No.	s. d.	No.	s. d.	No.	s. d.
Steam engine tender .....	69	24 -	60	28 -	60	30 -
Stoker .....	,,	16 -	,,	17 -	,,	18 -
Lodge keeper .....	,,	18 -	,,	20 -	,,	21 -
Warehouse boys, 14 to 18 } yrs. ....	,,	7 6	,,	7 6	,,	8 -
Warehousemen, 21 yrs. } and upwards .....	,,	18 -	,,	20 -	,,	22 -
Night watchmen.....	,,	16 -	,,	16 -	,,	18 -
(II.) CARDING DEPT. :						
Scutcher (women and girls)	69	7 -	60	7 6	60	8 -
Strippers (young men) ....	,,	11 -	,,	12 -	,,	14 -
Grinders .....	,,	13 -	,,	13 -	,,	15 -
Overlookers.....	,,	25 -	,,	28 -	,,	28 -
Card minders, 14 to 18 } yrs., (Boys).....	,,	6 -	,,	6 6	,,	7 -
Drawing frame tenters, } (Girls and Women)....	,,	6 6	,,	7 0	,,	8 -
Bobbin and fly tenters } (Women).....	,,	7 6	,,	8 6	,,	9 -
(III.) SPINNING UPON SELF- ACTING MULES :						
Milders, Nos. 4's to 24's	69	16 -	60	18 -	60	20 -
25's to 40's	,,	18 -	,,	18 6	,,	22 -
Piecers, Women & Young } Men .....	,,	8 -	,,	9 -	,,	10 -
Overlookers.....	,,	20 -	,,	22 -	,,	26 -
(IV.) THROSTLE SPINNING.						
Spinners, (girls 14 to 18 yrs.)	69	4 -	60	4 6	60	5 -
Do., (Women 18 yrs. & ups.)	,,	7 -	,,	7 6	,,	9 -
Overlookers.....	,,	18 -	,,	20 -	,,	24 -
Doffers to Spinners (Boys)	,,	5 -	,,	5 6	,,	6 -
(V.) REELING.						
Throstle reelers (Women)	69	9 -	60	9 6	60	9 6
Cop reelers .....	,,	8 6	,,	9 -	,,	9 -
Pin winders, (Girls) .....	69	5 6	60	6 -	60	5 6
Bobbin winders, (Women)	,,	9 -	,,	9 6	,,	9 -
Warpers .....	,,	22 -	,,	22 -	,,	23 -
Drawers .....	,,	18 6	,,	18 6	,,	19 -
Dressers .....	,,	20 -	,,	20 -	,,	20 -
Sizers .....	,,	23 -	,,	23 -	,,	25 -
Beamers .....	,,	22 -	,,	22 -	,,	22 -
(VI.) DOUBLING :						
Doublers, (Women) .....	69	7 -	60	7 6	60	9 -
Doffers to doublers, (Girls)	,,	4 -	,,	4 6	,,	5 -
Overlooker .....	,,	24 -	,,	25 -	,,	28 -
Jobbers, (Young Men) ....	,,	10 -	,,	11 -	,,	13 -
(VII.) GASSING YARN :						
Gassers, (Young Women)			60	8 6	60	9 6
Singers by oil .....	69	8 -	,,	—	,,	—



## (N.)—Cotton Manufactures (contd.).—HAND MULE SPINNING

Work.	1839, Net Earnings.		1849, Net Earnings.		1859, Net Earnings.		
	Hours.	800 Spindles.	Hours.	800 Spindles.	Hours.	800 Spindles.	1,600 Spindles.
<b>SPINNING UPON HAND MULES.</b>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>
Spinners, Nos. 40's .....	69	23 -	60	21 -	60	23 -	—
„ 60's .....	„	25 -	„	21 -	„	23 -	—
„ 80's to 100's .....	„	25 -	„	21 -	„	25 -	30 -
„ 120's „ 140's .....	„	40 -	„	36 -	„	—	40 -
„ 160's „ 180's .....	„	42 -	„	36 -	„	—	42 -
„ 180's „ 220's .....	„	45 -	„	40 -	„	—	45 -
Piecers 14 to 18 years .....	„	5 6	„	5 6	„	6 -	6 -
„ above 18 „ .....	„	8 -	„	8 6	„	9 -	10 -

## (O.)—Cotton Manufactures.—POWER LOOM WEAVING.—Cotton Cloths, &amp;c.

Work.	1839.				1849.				1859.			
	Hrs.	2 Looms.	3 Looms.	4 Looms.	Hrs.	2 Looms.	3 Looms.	4 Looms.	Hrs.	2 Looms.	3 Looms.	4 Looms.
<b>POWER LOOM WEAVERS</b> ( <i>principally Women</i> ).		<i>s. d.</i>				<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
72 reed printers' cloth ....	69	9 -	—	17 -	60	9 -	13 -	16 -	60	10 -	15 -	18 -
40 in. shirtings .....	„	9 -	—	17 -	„	9 -	13 -	16 -	„	10 9	16 -	20 -
38 in. domestics, 52 reed, 13 picks .....	„	10 -	—	16 -	—	10 -	—	16 -	—	10 -	—	16 -
Helpers, ( <i>Girls</i> ) .....	„	5 -	—	5 -	„	5 -	—	5 -	„	5 -	—	5 -
Bed ticks .....	„	—	—	—	60	12 -	—	—	60	12 -	—	—
Small wares .....	—	—	—	—	—	—	—	—	—	—	—	—
Jaconetts .....	—	—	—	—	60	11 -	—	—	60	11 -	—	—

## (P.)—Cotton Manufactures.—POWER AND HAND LOOMS.—Velvet, &amp;c.

Work.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
<b>POWER LOOM WEAVERS.</b>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
Velvets .....	59	12 -	59	12 -	59	14 -
Velveteens .....	„	12 -	„	12 -	„	14 -
Fustians .....	„	12 -	„	12 -	„	14 -
<b>HAND LOOM WEAVERS.</b>						
Fancy fabrics, (working at their own houses) .....	70	16 -	70	15 -	70	16 -

## (Q.)—MECHANICAL Trades and Workers in METAL.

TRADE.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
IV. Pattern Makers .....	58	30 —	58	30 —	58	32 —
Smith .....	„	30 —	„	32 —	„	32 —
Strikers .....	„	18 —	„	18 —	„	18 —
Planers .....	„	20 —	„	20 —	„	22 —
Borers .....	„	19 6	„	20 —	„	20 —
Screwers .....	„	18 —	„	18 —	„	18 —
Drillers .....	„	20 —	„	20 —	„	18 —
Slotters .....	„	20 —	„	20 —	„	18 —
Brass Founders .....	„	30 —	„	34 —	„	34 —
Joiners in Engineering wks.	„	29 —	„	28 —	„	28 —
Painters .... „ „	„	24 —	„	27 —	„	29 —
Fitters .....	„	30 —	„	30 —	„	32 —
Farriers .... „ „	„	32 —	„	30 —	„	30 —
Erectors .... „ „	„	32 —	„	32 —	„	33 —
Labourers „ „	„	16 —	„	15 —	„	15 6
Boiler makers „ „	„	22 —	„	30 —	„	32 —
Tin plate workers „ „	„	27 —	„	27 —	„	27 —
Millwrights „ „	„	30 —	„	32 —	„	32 —
Moulders „ „	„	34 —	„	34 —	„	34 —
V. Blacksmiths and } Whitesmiths .....	60	24 —	60	26 —	60	26 —
Braziers and Copper smiths	58	30 —	58	30 —	58	30 —
Tin plate workers .....	„	26 —	„	28 —	„	28 —
Brass Moulders (general) ..	„	42 —	„	30 —	„	30 —
Brass Finishers .....	„	30 —	„	28 —	„	28 —
VI. Engravers to Calico Printers.						
Sketch Makers .....	58½	35 —	58½	32 —	58½	35 —
Hand Engravers .....	„	42 —	„	40 —	„	35 —
Die Makers .....	„	58 —	„	45 —	„	48 —
Machine Men .....	„	33 —	„	30 —	„	31 —
Clammers and Polishers ..	„	28 —	„	24 —	„	25 —
Eccentric Engravers .....	„	45 —	„	40 —	„	36 —
VII. Wire Workers:						
Wire Drawers .....	59	27 —	59	30 —	59	30 —
Wire Weavers & Drawers ..	„	25 —	„	25 —	„	25 —
Labourers to ditto .....	55	18 —	55	18 —	55	18 —
Galvanizers to ditto .....	59	25 —	59	25 —	59	25 —
Labourers to ditto .....	55	18 —	55	16 —	55	16 —
Rollers .....	59	15 —	59	50 —	59	50 —
Forge Men .....	„	40 —	„	40 —	„	40 —
Labourers to ditto .....	„	20 —	„	20 —	„	20 —



## (R.)—Miscellaneous HANDICRAFTS.

TRADE.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
<b>I. Cabinet, &amp;c., Makers :</b>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
Cabinet & Chair Makers ....	60	26 -	60	28 -	59	28 -
Carvers .....	"	45 -	"	30 -	"	30 -
Polishers .....	"	17 -	"	20 -	"	20 -
Upholsterers .....	"	27 -	"	30 -	"	30 -
" (Women) ....	"	10 -	"	10 -	"	10 -
<b>II. Coach Builders :</b>						
Body Makers .....	61	35 -	61	35 -	61	35 -
Carriage ditto .....	"	30 -	"	30 -	"	30 -
Spring ditto.....	"	38 -	"	38 -	"	38 -
Smiths.....	"	35 -	"	35 -	"	35 -
Vice Men.....	"	22 -	"	22 -	"	22 -
Wheelers .....	"	30 -	"	30 -	"	30 -
Strikers .....	"	14 -	"	14 -	"	14 -
Body Painters .....	"	32 -	"	32 -	"	32 -
Carriage ditto .....	"	28 -	"	28 -	"	28 -
Labourers .....	"	16 6	"	16 6	"	16 6
Trimmers.....	"	32 -	"	32 -	"	32 -
<b>III. Painters, Engravers, &amp;c.:</b>						
Compositors (General) ....	60	30 -	60	30 -	60	30 -
Pressmen.....	"	30 -	"	30 -	"	30 -
Book Binders .....	"	30 -	"	26 -	"	26 -
Lithographers .....	"	—	"	28 -	"	28 -
Engraversto Copperplate } printers .....	"	42 -	"	30	"	30 -
Copperplate Printers .....	"	50 -	"	32	"	30 -
Newspaper Compositors } on <i>Weekly</i> Papers ....	59	31 -	59	31	59	31 -
Ditto on <i>Daily</i> Papers ....	—	—	—	—	54	40 -
<b>IV. Clock and Watch Makers:</b>						
Turret Clocks .....	58	40 -	58	38 -	58	26 -
Clocks .....	"	26 -	"	26 -	"	22 -
Watch Making .....	"	40 -	"	30 -	"	30 -
" Repairing .....	"	40 -	"	30 -	"	30 -
Foremen .....	"	80 -	"	60 -	"	60 -
<b>V. Umbrella Makers:</b>						
Frame Makers.....	60	26 -	60	16 -	57½	16 -
Coverers (Women) .....	"	24 -	"	12 -	54	12 -

(R.)—Miscellaneous Handicraft—Contd.

TRADE.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
		s. d.		s. d.		s. d.
VI. Soap Makers:						
Skilled Labour.....	58	30 -	58	30 -	58	30 -
Labourers .....	„	20 -	„	20 -	„	18 -
VII. Leather Manufacturers:						
Tanners .....	58	18 -	58	18 -	58	18 -
Dressers .....	„	18 -	„	18 -	„	18 -
VIII. Shoemakers:						
Boot Closers .....	60	26 -	60	26 -	60	32 -
Boot Makers .....	„	22 -	„	23 -	„	25 -
IX. Paper Makers:						
Machine Men .....	61	21 -	61	21 -	61	21 -
Labourers .....	„	14 -	„	14 -	„	14 -
X. Paper Hangings' Manufacturers:						
Machine Printers.....	61	—	61	40 -	61	31 -
Block Printers .....	„	80 -	„	40 -	„	31 -
XI. Paper Hangers .....	„	35 -	58	30 -	58	30 -
XII. Glass Manufacture:						
Flint { 1st Class.....	51	45 -	51	55 -	51	55 -
{ 2nd „ .....	„	32 -	„	40 -	„	40 -
Glass { 3rd „ .....	„	25 -	„	30 -	„	30 -
and { 4th „ .....	„	25 -	„	30 -	„	30 -
Articles. { 5th „ .....	„	18 -	„	20 -	„	20 -
{ 6th „ .....	„	15 -	„	15 -	„	16 -
Glass Cutters .....	„	30 -	„	32 -	„	32 -
XIII. Butchers .....	66	16 -	66	16 -	66	16 -
XIV. Bakers .....	66	21 -	66	22 -	66	22 -
Bakers' Foremen.....	„	26 -	„	26 -	„	26 -
XV. Tailors:						
Coat Men.....	72	27 -	72	27 -	72	27 -
Trousers and Vest Men ....	„	21 -	„	21 -	„	21 -



## (R.)—Miscellaneous Handicraft.—Contd.

TRADE.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
<b>XVI. Hatters.—Silk:</b>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
Body Makers .....	60	32 —	60	30 —	60	25 —
Silk Finishers .....	„	30 —	„	28 —	„	25 —
Teppers off .....	„	50 —	„	40 —	„	35 —
<b>Ditto.—Felt.</b>						
Body Makers .....	60	34 —	60	20 —	60	22 —
Proofers .....	„	36 —	„	30 —	„	32 —
Blockers .....	„	35 —	„	30 —	„	35 —
Dyers .....	„	30 —	„	28 —	„	30 —
Finishers .....	„	36 —	„	25 —	„	28 —
<b>Crown Sewers, Women } and Girls .....</b>	„	9 —	„	9 —	„	9 —
Trimmers.....	„	13 —	„	10 —	„	10 —
<b>XVII. Coopers.....</b>	61	32 —	58	36 —	58	30 —
<b>XVIII. Wheelwrights ....</b>	63	24 —	61	24 —	59	20 —
<b>XIX. Police Constables....</b>	70	19 —	70	19 —	70	20 —
<b>XX. Gass-men:</b>						
Retort Men.....	70	30 —	70	30 —	70	30 —
Labourers .....	58½	18 —	58½	18 —	58½	18 —
<b>XXI. Street Scavengers:</b>						
Carters.....	—	16 —	—	16 —	—	16 —
Scavengers .....	—	10 —	—	13 —	—	13 —
<b>XXII. Highway Work- men:</b>						
Street Labourers.....	58½	16 6	58½	16 6	56½	16 6
Carters.....	„	16 —	„	17 —	„	17 —
Masons .....	„	27 —	„	27 —	„	27 —
<b>XXIII. Coal Mining:</b>						
Coal Miners.....	50	25 —	50	20 —	50	25 —
Drawers' Men .....	„	17 —	„	14 —	„	17 —
„ Boys .....	„	12 —	„	9 —	„	12 —
Underlookers .....	„	36 —	„	36 —	„	36 —
Fire Men.....	„	24 —	„	20 —	„	24 —
Tunnellers .....	„	25 —	„	20 —	„	25 —
Carters.....	60	17 —	60	15 —	60	17 —

## (R.)—Miscellaneous Handicraft.—Contd.

TRADE.	1839.		1849.		1859.	
	Hours.	Wages.	Hours.	Wages.	Hours.	Wages.
<b>XXIV. Agricultural Occupations:</b>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>
Gardeners (General) .....	61½	16 -	61½	16 -	61½	16 -
Dairy Men .....	64	15 -	64	15 -	64	15 -
Carters .....	60	16 -	60	16 -	60	16 -
Farm Labourers .....	60	15 -	60	15 -	60	15 -
Ditto, <i>with Board and Lodgings</i> .....	60	6 -	60	6 -	60	6 -

## (R.)—Miscellaneous Employments—Contd.

Merchants' and Manufacturers' Warehousemen.

Salaries in 1859.

		£	£	
Salesmen and Buyers .....	from	100	@ 1,500	per annum.
Cashiers .....	„	80	„	800 „
Book Keepers and Clerks .....	„	50	„	300 „
Porters .....	„	40	„	80 „
Packers .....	„	60	„	90 „

## (S.)—Declared Real Value of Cotton Manufactures Exported from the United Kingdom, 1844-58.

	£		£
1844 .....	18,814,000	1854 .....	25,054,000
1849 .....	20,671,000	1858 .....	33,421,000

## Quantities of Raw Cotton Imported into the United Kingdom from Various Countries, 1844-58.

1844 .....	646,111,000 lbs.	1854 .....	887,333,000 lbs.
1849 .....	755,469,000 „	1858 .....	1,034,342,000 „

## (T.)—Imports of Cotton Wool into the United Kingdom, 1806-59.

Imported from	1806.	1816.	1826.	1836.	1846.	1856.	1859.
	Bags.	Bags.	Bags.	Bags.	Bags.	Bags.	Bags.
From the United States of America }	124,000	166,000	395,000	764,000	932,000	1,758,000	2,085,000
From Brazil or South America .... }	51,	123,	55,	148,	84,	121,	124,
From Egypt .....	—	—	47,	34,	59,	113,	101,
„ East Indies .....	7,	30,	64,	219,	49,	463,	511,
„ West Indies and other Colonies }	77,	49,	18,	33,	9,	11,	7,
Total Bags for each year .....	261,000	369,000	582,000	1,201,000	1,134,000	2,467,000	2,828,000

## (U.)—Consumption of Cotton Wool in the United Kingdom, 1806-59.

Of Each Kind in the Years	1806.	1816.	1826.	1836.	1846.	1856.	1859.
Of American .... Bags	Approximate. 120,000	209,000	356,000	747,000	1,280 000	1,657,000	1,903,000
„ Brazilian..... „	50,	82,	61,	130,	106,	145,	105,
„ Egyptian..... „	—	—	50,	33,	69,	127,	98,
„ East Indian.... „	7,	10,	25,	77,	113,	269,	177,
„ W. Indian,&c. „	75,	34,	16,	22,	15,	13,	7,
Total Bags for each year .... }	252,000	336,000	511,000	1,011,000	1,585,000	2,213,000	2,290,000
Total per week of every kind }	4,846	6,478	9,825	19,452	30,498	42,563	44,05

(V.)—Abstract Account of the Number of FACTORIES for SPINNING and WEAVING COTTON in the UNITED KINGDOM in 1856, showing also the Number of Spindles and Power Looms, and of the Individuals (classified according to their Sexes and Ages) EMPLOYED in the same.

DIVISION.	Number of Factories.	Number of Spindles.	Number of Power Looms.	Amount of Moving Power.		Number of Children under 13 Years of Age.	
				Steam.	Water.	Male.	Female.
England and Wales....	No. 2,046	No. 25,818,576	No. 275,590	Horses. 79,836	Horses. 6,551	No. 14,024	No. 9,911
Scotland .....	152	2,041,139	21,624	7,641	2,330	339	374
Ireland.....	12	150,502	1,633	524	250	—	—
Total.....	2,210	28,010,217	298,847	88,001	9,131	14,363	10,285

DIVISION.	Number of Males between 13 and 18 Years of Age.	Number of Females above 13 Years of Age.	Number of Males above 18 Years of Age.	Total Numbers Employed.		
				Male.	Female.	Male and Female.
England and Wales....	No. 36,421	No. 182,905	No. 97,909	No. 148,354	No. 192,816	No. 341,170
Scotland .....	2,096	26,715	5,174	7,609	27,089	34,698
Ireland.....	424	2,122	799	1,223	2,122	3,345
Total .....	38,941	211,742	103,882	157,186	222,027	379,213



(W.)—Number of Power Looms, 1836-56.

FABRIC.	1836.	1850.	1856.
	No.	No.	No.
Cotton .....	108,751	249,627	298,847
Woollen .....	2,150	8,439	14,453
Worsted .....	2,969	32,167	38,956
Silk .....	1,714	6,092	9,260
Flax .....	209	3,670	7,689
Total .....	115,793	301,445	369,205

(X.)—Number of FACTORIES in the UNITED KINGDOM in 1838, 1850, and 1856, exhibiting their Increase per cent. from 1838-56.

DESCRIPTION.	Factories in			Per Cent. increase from 1838 to 1856.
	1838.	1850.	1856.	
	No.	No.	No.	Per cent.
Cotton Factories .....	1,819	1,932	2,210	21·49
Woollen.....	1,322	1,497	1,505	13·84
Worsted.....	416	501	525	26·20
Flax .....	392	393	417	6·37
Silk .....	268	277	460	71·64
Totals .....	4,217	4,600	5,117	21·34

Y.)—The following Table gives the extreme Prices of Cotton Wool at Liverpool on the 31st December, 1818-28-38-49-53-58, showing the Progressive Reduction of the RAW MATERIAL during that time.

Kind.	1818.	1828.	1838.	1849.	1853.	1858.	1859.
	d. d.	d. d.	d. d.	d. d.	d. d.	d. d.	d. d.
Sea Islands .....	33 @ 48	12 @ 20	14 @ 33	9½ @ 20	13 @ 36	10 @ 24	10 @ 22
Orleans .....	16½,, 21	6 ,, 9	5 ,, 10	3¼,, 8½	4¼,, 8½	5 ,, 8	4 ,, 8½
Upland (bowed) .....	17 ,, 19¾	5¾,, 7	5 ,, 9½	3⅞,, 7½	4½,, 7¼	5 ,, 7⅞	4½,, 7¾
Egyptian .....	—	7 ,, 8½	8¼,, 16½	4¾,, 9	5 ,, 15	7 ,, 11	7 ,, 10½
Pernambuco ...	22 ,, 23½	7½,, 8½	8¼,, 11	4⅜,, 7½	6⅓,, 8½	7¼,, 9	7 ,, 8¾
Maranham .....	20 ,, 20½	7¼,, 7¾	7 ,, 10	3⅞,, 6¾	5¾,, 8	7½,, 9	7¾,, 9
Demerara.....	19 ,, 24	6¾,, 9	8 ,, 13	3½,, 7½	4½,, 8½	7¼,, 7¾	6⅞,, 7¼
Vest India .....	17 ,, 18½	6 ,, 7	—	—	—	—	—
Surat .....	8 ,, 14½	3½,, 5	3¾,, 6½	2½,, 5¼	2¼,, 5¼	5 ,, 6¼	3½,, 5½

(Z.)—*Comparative Statement of the Cost of English and Indian COTTON YARN in 1812 and 1830, furnished by the late Mr. John Kennedy, of Manchester, to the Committee of Parliament on East India Affairs, and continued to 1858.*

	Cotton Yarns made in England.								
YARN.	Hanks per Day, per Spindle.			Price of Cotton and Waste, per lb.			Labour, per lb.		
Nos.	1812.	1830.	1858.	1812.	1830.	1858.	1812.	1830.	1858.
				<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
40's ....	2 ·	2·75	2·75	1 6	— 7	— 6	1 —	— 7½	— 5
60's ....	1·75	2·5	2·5	2 —	— 10	— 7½	1 6	1 —½	— 8
80's ....	1·5	2 ·	2 ·	2 2	— 11¼	— 9	2 2	1 7½	1 3
100's ...	1·4	1·8	1·8	2 4	1 1¾	— 11	2 10	2 2½	1 8
120's ...	1·25	1·65	1·65	2 6	1 4	1 3	3 6	2 8	2 —
150's ...	1 ·	1·33	1·33	2 10	1 8	1 9	6 6	4 11	3 6
200's ....	·75	·9	·9	3 4	3 —	2 6	16 8	11 6	6 —
250's ...	·05	·6	·6	4 —	3 8	3 6	31 —	24 6	18 —

YARN.	Cotton Yarns made in England.			Cotton Yarns made in INDIA.		
	Cost, per lb.			Price of Cotton and Waste, per lb.	Labour, per lb.	Cost, per lb.
	Nos.	1812.	1830.	1858.	1812, 1830, and 1858.	1812, 1830, and 1858.
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
40's ....	2 6	1 2½	— 11	— 3	3 4	3 7
60's ....	3 6	1 10½	1 3½	— 3½	5 8½	6 0
80's ....	4 4	2 6¾	2 —	— 4½	8 10½	9 3
100's ...	5 2	3 4¼	2 5	— 5	11 11	12 4
120's ...	6 —	4 —	3 3	— 5	16 —	16 5
150's ...	9 4	6 7	5 3	— 6	25 —	25 6
200's ...	20 —	14 6	8 6	— 6	44 7	45 1
250's ...	35 —	28 2	21 6	— 8	83 4	84 —

(AA.)—*Population of England and Wales—of the County of Lancaster, and of the Manchester Districts—from 1801 to 1851.*

	1801.	1811.	Increase, 1801-11.	1821.	Increase, 1811-21.
			Per cent.		Per cent.
England and Wales ....	8,892,536	10,164,256	14 ·	12,000,236	18 ·
County of Lancaster....	673,486	828,499	22 ·	1,052,948	27 ·
Manchester .....	124,339	149,801	20 ·5	201,506	34 ·5
Salford .....					
Charlton, and.....					
Barton-upon-Irwell Poor Law Districts }					

	1831.	Increase, 1821-31.	1841.	Increase, 1831-41.	1851.	Increase, 1841-'51.
		Per cent.		Per cent.		Per cent.
England and Wales ....	13,896,797	16 ·	15,914,148	14 ·	17,927,609	13 ·
County of Lancaster....	1,336,854	27 ·	1,667,054	24 ·	2,031,236	22 ·
Manchester .....	284,238	41 ·	366,050	42 ·86	471,382	28 ·77
Salford .....						
Charlton, and.....						
Barton-upon-Irwell Poor Law Districts }						

(BB.)—*The following Return shows the Number of Persons in LANCASHIRE engaged in various Trades as per Census Returns, 1831, 1841, and 1851.*

	1831.	1841.	1851.
<b>BUILDING TRADES.</b>			
Carpenters and Joiners .....	*8,958	12,799	14,132
Bricklayers .....	1,785	2,903	6,027
Masons and Paviers .....	3,203	6,356	9,315
Painters, Glaziers, and Plumbers .....	2,474	5,826	7,853
Brickmakers .....	684	1,419	2,608
	17,104	29,303	39,935
<b>MECHANICAL TRADES.</b>			
Engine, Machine, Toolmakers, and Millwrights .....	†64	3,674	15,340
Boiler-makers .....	7	873	1,630
Iron Manufacturers .....	846	2,448	7,298
Blacksmiths and Whitesmiths .....	4,601	8,635	10,953
	5,518	15,630	35,221

N.B.—The numbers for 1831 are all above 20 years of age.

\* Includes Cabinet Makers, 1691.

† Millwrights only—no record of the others.



## (BB.)—Contd.—Occupations—Lancashire.

	1831.	1841.	1851.
<b>MECHANICAL TRADES—Contd.</b>			
Labourers (undefined) .....	—	—	40,312
Printers Engravers.....	1,199	3,766	3,771
Shoemakers.....	8,470	14,805	17,765
Tailors.....	5,225	10,367	13,354
Hatters .....	*1,415	5,546	3,482
Wheelwrights .....	—	1,537	2,540
Coal-miners.....	—	15,980	28,834
	—	—	—
<b>AGRICULTURAL OCCUPATIONS.</b>			
Gardeners .....	—	2,294	3,923
Farm Labourers (out-doors) .....	20,949	30,237	{ 27,254
„ „ (in-doors) .....			{ 8,720
	20,949	32,531	39,897
<b>COMMERCIAL OCCUPATIONS.</b>			
Travellers .....	—	111	1,431
Clerks .....	—	†8,023	8,231
	—	—	—

N.B.—The numbers for 1831 are all above 20 years of age.

\* Including Hosiers.

† Including Law Clerks. The number of Law Clerks, 1851, was 920.

## (CC.)—Manchester and Salford Savings' Bank, 1839-59.

DESCRIPTION.	1839.	1844.	1849.	1854.	1858.	1859.
Number of Depositors in the } Manchester and Salford } Savings' Banks .....	11,743	20,680	24,751	25,294	41,398	45,447
	£	£	£	£	£	£
Total amount of Sums in Deposit	331,729	568,313	614,105	874,290	1,030,704	1,160,085
Amount paid in during each year	106,809	188,774	191,163	249,963	285,429	347,165
Amount drawn out during each } year .....	117,355	126,321	150,810	258,287	269,571	249,448
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Rate of Interest allowed....	3 6 8	2 18 4	3 — —	3 — —	3 — —	3 — —

(DD.)—Statement of the WEEKLY EXPENDITURE, in 1859, of a Family consisting of Husband, Wife, and Three Children, whose Total WAGES average 30s. per Week :—as compared with the Cost of the same Articles in 1849, and 1839.

ARTICLES.	Expenditure in 1859.		Cost of same Articles in 1849.		Cost of same Articles in 1839.	
<b>(I.) BREAD, FLOUR, AND MEAL.</b>						
8 4 lb. loaves (32 lbs.) ....	5½d. pr. 4 lbs.	3 8	6d. per 4 lbs.	4 —	8½d. pr. 4 lbs.	5 8
½ a peck of meal .....	1s. 8d. pr. pk.	— 10	1s. 6d. pr. pk.	— 9	1s. 4d. pr. pk.	— 8
½ a doz. (6 lbs.) flour ....	1s. 8d. pr. doz.	— 10	1s. 10d. pr. doz.	— 11	2s. 4d. pr. doz.	1 2
		5 4		5 8		7 8
<b>(II.) BUTCHER'S MEAT AND BACON.</b>						
5 lbs. of butcher's meat..	6½d. per lb.	2 8½	7d. per lb.	2 11	6½d. per lb.	2 8½
2 „ of bacon .....	8d. „	1 4	9d. „	1 6	8d. „	1 4
		4 —½		4 5		4 —½
<b>(III.) POTATOES, MILK, AND VEGETABLES.</b>						
2 score of potatoes .....	1s. per score	2 —	1s. per score	2 —	1s. per score	2 —
7 quarts of milk .....	3d. per quart	1 9	3d. per quart	1 9	3d. per quart	1 9
Vegetables .....	—	— 6	—	— 6	—	— 6
		4 3		4 3		4 3
<b>(IV.) GROCERIES, COALS, &amp;c.</b>						
½ lb. of coffee .....	1s. 4d. per lb.	— 8	1s. 4d. per lb.	— 8	2s. per lb.	1 —
¼ „ of tea .....	4s. „	1 —	4s. 4d. „	1 1	6s. „	1 6
3 lbs. of sugar .....	5d. „	1 3	5d. „	1 3	7d. „	1 9
2 „ of rice .....	3d. „	— 6	3d. „	— 6	4d. „	— 8
1 lb. of butter .....	1s. 1d. „	1 1	1s. „	1 —	1s. 1d. „	1 1
2 lbs. of treacle.....	2½d. „	— 5	3d. „	— 6	4d. „	— 8
1½ „ of soap.....	4d. „	— 6	5d. „	— 7½	5d. „	— 7½
Coals 1s., candles 6d. ....	—	1 6	—	1 6	—	1 6
		6 11		7 1½		9 9½
Rent, taxes, and water ....	—	4 —	—	4 —	—	4 —
Clothing .....	—	3 —	—	3 —	—	3 —
Sundries .....	—	2 5½	—	2 5½	—	2 5½
		30 —		30 11		34 —½

(EE.)—Average Prices of COTTON, YARN, CLOTH, and WHEAT, and Rates of DISCOUNT, &c., in Manchester, in the months of DECEMBER, 1850-9.—Compiled from the Trade Report of Messrs. Du Fay and Co., of Manchester.

DESCRIPTION.	December, 1850.	December, 1851.	December, 1852.	December, 1853.	December, 1854.
	s. d.	s. d.	s. d.	s. d.	s. d.
PRICES OF RAW COTTON.					
Upland Bowed, fair ..... per lb.	— 7 $\frac{3}{4}$	— 5	— 5 $\frac{3}{4}$	— 6 $\frac{3}{8}$	— 5 $\frac{1}{2}$
„ „ good fair ..... „	— 8	— 5 $\frac{1}{4}$	— 5 $\frac{7}{8}$	— 6 $\frac{1}{2}$	— 5 $\frac{3}{4}$
Pernambuco, fair ..... „	— 8 $\frac{1}{2}$	— 6 $\frac{1}{4}$	— 6 $\frac{3}{4}$	— 7 $\frac{1}{8}$	— 6 $\frac{5}{8}$
„ good fair ..... „	— 9	— 6 $\frac{3}{4}$	— 7	— 7 $\frac{5}{8}$	— 6 $\frac{7}{8}$
PRICES OF YARN AND COTTON CLOTH.					
No. 40's Mule Yarn (Quality A.).... per lb.	— 11 $\frac{3}{4}$	— 8	— 9 $\frac{1}{2}$	— 9 $\frac{1}{8}$	— 8
„ 30's Water Twist ..... „	— 11 $\frac{3}{8}$	— 9	— 9 $\frac{3}{4}$	— 9 $\frac{1}{2}$	— 8
$\frac{7}{8}$ Power Loom Cloth, 72 reeds 29 yds. } per piece ..... }	6 0	5 6	5 9	5 9	5 1 $\frac{1}{2}$
40 in. do. 66 reeds 38 to 39 yds., per piece	10 3	8 7 $\frac{1}{2}$	9 3	9 3	8 1 $\frac{1}{2}$
40 in. do. 72 „ „ „	11 4	9 9	10 9	10 4 $\frac{1}{2}$	9 1 $\frac{1}{2}$
AVERAGE PRICE OF WHEAT per impl. qr.	39 1	37 2	41 3	71 8	73 1
RATE OF DISCOUNT for unexceptionable } Bills..... }	Per cent. 2 $\frac{1}{2}$	Per cent. 3	Per cent. 2 $\frac{1}{2}$	Per cent. 5	Per cent. 5

DESCRIPTION.	December, 1855.	December, 1856.	December, 1857.	December, 1858.	December, 1859.
	s. d.	s. d.	s. d.	s. d.	s. d.
PRICES OF RAW COTTON.					
Upland Bowed, fair ..... per lb.	— 5 $\frac{1}{16}$	— 7 $\frac{5}{8}$	— 6 $\frac{1}{4}$	— 7 $\frac{1}{16}$	— 7 $\frac{3}{8}$
„ „ good fair ..... „	— 5 $\frac{1}{16}$	— 7 $\frac{3}{4}$	— 6 $\frac{3}{8}$	— 7 $\frac{1}{8}$	— 7 $\frac{1}{2}$
Pernambuco, fair ..... „	— 6 $\frac{3}{8}$	— 8	— 7 $\frac{3}{8}$	— 8 $\frac{1}{4}$	— 8 $\frac{3}{8}$
„ good fair ..... „	— 6 $\frac{1}{2}$	— 8 $\frac{1}{4}$	— 7 $\frac{9}{16}$	— 8 $\frac{1}{2}$	— 8 $\frac{5}{8}$
PRICES OF YARN AND COTTON CLOTH.					
No. 40's Mule Yarn (Quality A.).... per lb.	— 8 $\frac{3}{4}$	— 10 $\frac{1}{4}$	— 9 $\frac{5}{8}$	— 11 $\frac{3}{4}$	— 11 $\frac{3}{4}$
„ 30's Water Twist ..... „	— 8 $\frac{3}{4}$	— 10 $\frac{1}{4}$	— 9 $\frac{1}{2}$	— 11	— 12
$\frac{7}{8}$ Power Loom Cloth, 72 reeds 29 yds. per } piece ..... }	5 1 $\frac{1}{2}$	6 —	5 3	6 1 $\frac{1}{2}$	6 6
40 in. do. 66 reeds 38 to 39 yds., per piece	8 3	9 3	8 9	10 6	10 9
40 in. do. 72 „ „ „	9 1 $\frac{1}{2}$	10 3	10 1 $\frac{1}{2}$	11 6	12 3
AVERAGE PRICE OF WHEAT per impl. qr.	81 —	61 10	49 10	41 1	42 10
RATE OF DISCOUNT for unexceptionable } Bills..... }	Per cent. 6	Per cent. 6 $\frac{1}{2}$	Per cent. 8	Per cent. 2 $\frac{1}{2}$	Per cent. 2 $\frac{1}{2}$



*On the DISTRIBUTION and PRODUCTIVENESS of TAXES with reference to the PROSPECTIVE AMELIORATIONS in the PUBLIC REVENUE of the UNITED KINGDOM. By LEONE LEVI, F.S.A., F.S.S., Barrister-at-Law, Professor of the Principles and Practice of Commerce in King's College, London.*

[Read before the Statistical Society, 17th January, 1860.]

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I.—Introduction.

THERE is scarcely a branch of Statistical science to which the attention of the Society may be more advantageously directed than the Financial, and there is no department of public administration more dependent on statistical inquiry than that which superintends the finances of the Nation. A searching and extended examination on national resources, and on the relation of public burdens to the incomes of different classes of society, and a wise appreciation of the effects of taxes on the comforts and industries of the people, and on the development of national wealth,—these are objects which can be best accomplished by statistical analysis. And as we possess many valuable materials whereby we are enabled to form a correct opinion on the nature of our financial arrangements, I have deemed it sufficiently important to bring the result of my researches before the Society, fully relying on their accustomed kindness for much forbearance, whilst I call their attention to many uninviting items of detail.

In pursuing my inquiry, my aim has been to draw from the past the most legitimate inferences for the future. Necessarily, part of my observations are conjectural only, yet they are flowing from ascertained statistical facts, and may thus become valuable data for the Statist and the Financier. In indicating the direction in which any reform in the method of taxation can most advantageously be made, I have kept in view a fact of practical importance, that in matters of finance and politics, theory and practice cannot always go hand in hand. In imposing taxation it is the duty of the Financier to study the economical condition of the people—their habits—their temper—

their prospects, and any other event, political or otherwise, which may immediately or remotely affect the finances of the Empire.

## II.—*Revenue, Population, Wealth.*

The produce of taxation or *gross revenue* since the commencement of the present century including Customs and Excise, Stamps, Post Office, Taxes, &c., but exclusive of local taxes which amount to upwards of 12,000,000*l.*, has been as follows :\*

### (A.)—*United Kingdom—Gross Revenue, 1801-58.*

1801-1810 .....	£57 mlns. strlg.	1831-1840 .....	£51 mlns. strlg.
1811-1820 .....	74 „	1841-1850 .....	55 „
1821-1830 .....	58 „	1851-1858† .....	60 „

This amount will, however, fail to represent the real burdens imposed on the State, unless we take into account the number of the people at the respective periods.

Taking the *Average Population* of the United Kingdom and the amount of Taxes, we have the following results :—

### (B.)—*United Kingdom—Population and Taxes, 1801-58.*

Years.	Population.	Taxes.	Per Head.
		£	£ s. d.
1801-1810 .....	17,000,000	57 mlns. strlg.	3 7 1
1811-1820 .....	20,000,000	74 „	3 14 —
1821-1830 .....	22,500,000	58 „	2 11 6
1831-1840 .....	25,500,000	51 „	2 — 9
1841-1850 .....	27,000,000	55 „	2 — 8
1851-1858 .....	28,500,000	60 „	2 2 1

\* The Chancellor of the Exchequer (10th February, 1860) estimated the *local* expenditure in the year 1859-60 at 17,458,000*l.* The local expenditure consisted principally of the following sums :—

For the Relief of the Poor, England .....	£6,000,000
„ „ „ Scotland .....	600,000
„ „ „ Ireland .....	700,000
	7,300,000
County and Police and other Rates .....	2,000,000
Highway .....	1,000,000
Church Rates .....	500,000
Municipal Rates .....	?
Dock Rates .....	?

† In the last period the revenue has been as follows :—

1851 .....	£52,233,006	1855 .....	£63,364,605
1852 .....	53,210,071	1856 .....	68,008,623
1853 .....	54,430,344	1857 .....	66,056,065
1854 .....	56,822,509	1858 .....	61,812,555

Taking the average of the last thirty years, we have an average taxation of 55,000,000*l.* or 2*l.* 1*s.* *per head.* Supposing we were blessed with ten years peace and the population to increase during this period to about 32,000,000,\* the same amount of taxation will necessitate a proportional contribution of 1*l.* 15*s.* *per head.*

As compared with the Taxation of other countries the proportional contribution stands as follows:—

(C.)—Comparative Taxations.

Countries.	Population.	Years.	Taxes.	Per Head.
			£	£ s. d.
United Kingdom .....	28,500,000	1851–8	60,000,000	2 2 1
Holland .....	3,200,000	1850–6	6,200,000	1 18 –
France .....	36,000,000	1850–6	55,000,000	1 10 –
Belgium .....	4,400,000	1854–6	6,000,000	1 7 –
Sardinia .....	5,000,000	1853–7	5,300,000	1 1 –
Prussia.....	16,000,000	1852–5	16,000,000	1 – –
Spain .....	16,000,000	1855–7	16,000,000	1 – –
Portugal .....	3,500,000	1854–7	2,800,000	– 16 6
Tuscany .....	1,800,000	1854–6	1,300,000	– 14 –
Austria .....	38,000,000	1851–8	14,000,000	– 13 –
United States of America	26,000,000	1857–8	14,000,000	– 10 10
Denmark .....	1,400,000	1850	2,000,000	1 8 6
Switzerland .....	1,400,000	1855–7	650,000	– 5 6
Russia .....	53,000,000	1849	25,000,000	– 9 5

The people of the United Kingdom are thus apparently taxed higher than those of other countries. We cannot however, build too much on these comparative tables, because the financial accounts of different countries are constructed differently. The local taxes are included in some, excluded in others. The Police in some countries is wholly maintained by the State, in others by the Municipalities. Thus it would seem as if the people of Holland pay 3¼ times more than the Austrians; but in Holland the budget includes

\* The estimated population of the United Kingdom in the middle of the year 1857 was as follows:—

England.....	19,304,897
Scotland .....	3,072,725
Ireland .....	6,000,000
	<u>28,377,622</u>

The population of Ireland has decreased since 1851. That of Great Britain, however, increased at the rate of 1·326 per cent. Taking the population of the United Kingdom to increase at the rate of 1¼ per cent. per annum, we have—

1858.....	29,130,000	1862.....	30,680,000	1865 .....	31,800,000
1859.....	29,500,000	1863.....	31,000,000	1866 .....	32,200,000
1860.....	29,820,000				
1861.....	30,300,000	1864 .....	31,400,000	1867 .....	32,600,000



the provincial receipts, whereas in Austria it includes only the revenue of the State.

Another important question in matters of taxation is the proportion it bears to *national income*. To form a correct estimate of the finances of any country, it is necessary fully to appreciate its strength and revenues. Burdens, oppressive beyond measure to one nation, may be altogether light to another. What may have proved a great barrier to national progress at one period, may operate as a healthy stimulus to valuable energies in another. Witness the alarm prevailing in England during the first era of her national debt, as compared with the ease with which its burden, so immeasurably increased is now borne. The unbounded prosperity of the nation has, in fact, neutralised the evils which seemed impending upon her from her excessive expenditure, and frustrated the realisation of the most gloomy forebodings of the wisest British Statesmen.

The wealth of the United Kingdom has enormously increased within the present century. In the year 1800, Dr. Becke and Sir William Pulteney estimated it at 1,800 millions sterling. In 1811, Dr. Colquhoun estimated it at 2,100 millions. In 1845, Mr. Porter valued the personal property at about 2,000 millions, and the real property at somewhat the same sum; and now it is estimated at 6,000 millions sterling. Comparing these figures with the population we have the following facts:—

(D.)—*United Kingdom—Population and Wealth.*

Year.	Population.	Wealth.	Per Head.	Increase.
		£	£	
1801.....	16 mlns.	1,800 mlns. strlg.	112	—
1811.....	18 „	2,100 „	116	16 pr. ct.
1841.....	27 „	4,000 „	150	94 „
1858.....	29 „	6,000 „	206	50 „

In the same manner the *Income* of the country has increased in the following ratio:—

(E.)—*United Kingdom—Population and Income.*

Year.	Population.	Income.	Per Head.	Increase.
		£	£ s.	
1800.....	16 mlns.	230 mlns. strlg.	14 7	—
1841.....	26 „	450 „	17 6	95 pr. ct.
1858.....	29 „	600 „	20 15	31 „

Here we have two facts:—In the last 58 years the *population* has increased from 16 millions to 29 millions, or 80 per cent. ; the accumulated *Wealth* from 112*l.* to 206*l.* *per head*, or nearly 80 per cent. ; whilst the *Taxes* have *decreased* from 3*l.* 7*s.* 1*d.* to 2*l.* 2*s.* 1*d.* *per head*, or 37 per cent., clearly showing how much lighter are the present taxes as compared with those levied at the commencement of this century. And this will the more clearly appear if we compare the relation the *Taxation* bears to the *Income* of the country at different times, as follows:—

(F.)—*United Kingdom—Income and Taxation.*

	Income.	Taxes.	
		£	£
1801–10 .....	230 mlns. strlg.	57 mlns. strlg.	25 per cent.
1841.....	450    „	53    „	12    „
1859.....	600    „	60    „	10    „

There is no reason therefore to believe that the taxation of this country paralyses in any way the development of national wealth. Indeed were we to dive deep into the arcana of this gigantic prosperity of Britain, we should find it in a great measure owing to the very difficulties which British nationality imposes. To meet a personal expenditure greater far than that required in any other country—to answer the calls of the tax gatherer—and to provide for those comforts which the wants and conventionalities of British society have created, great efforts are needed. No one is allowed to indulge in *dolce far niente*. The energies of the body and mind are taxed to the utmost extent—the laws of nature, physical and intellectual, are all rendered subservient to the creation of capital—the ship of fortune is fearlessly dashed through the storms and gales of adversity, and acts of daring from which the timid adventurer would shrink, become the vehicles of colossal treasures. Here and there a bark is foundered. Often intellect and bodily strength become a wreck amidst shattered fortune and reputation. Yet the British character, inured to hardships and storms, conquers all difficulties, and strengthens in vigour and solidity.

If we compare the *Income* of this and other countries, we have the following results:—

(G.)—*Comparative Income.*

Countries.	Population.	Income.	Per Head.
		£	£ s.
United Kingdom.....	29 mlns.	600 mlns. strlg.	21 —
France .....	36 „	450 „	11 10
Russia .....	60 „	400 „	6 13
Austria .....	38 „	250 „	6 10

Whilst France has an income of half the amount, per head, of that of the United Kingdom, her amount of taxation is nearly alike. In Britain 10 per cent. of the public income is devoted to the wants of the State ; in France, nearly 14 per cent. ; and in Austria no more than 6 per cent.

III.—*Distribution of Taxes.*

Next to the proportion of taxation to wealth and population, the most important point is the equitable distribution of taxes in every part of the United Kingdom, and every class of society, no principle being more fully established in civil society, than that which imposes upon all the subjects alike, rich or poor, the duty to contribute to the support of the State in proportion to their respective resources. The proportional amount of *Taxation* in England and Wales, Scotland and Ireland, in so far as can be gathered from the amount of revenue collected in the respective countries, was as follows:—

(H.)—*United Kingdom—Distribution of Taxes.*

Countries.	Population.	Taxes.	Per Head.
		£	£ s. d.
England and Wales....	20,000,000	49,000,000	2 9 —
Scotland .....	3,200,000	7,200,000	2 6 —
Ireland.....	6,000,000	6,900,000	1 1 —

It must be remembered, however, that a considerable amount of duty is paid in England for articles consumed in Scotland and Ireland, and that therefore, the relative proportion of taxation may be somewhat altered.

The disparity which exists, more especially as regards Ireland, is partly accounted for by the less amount of property in that country, as evidenced by the following Table of the amount assessed to



Income tax in England, Scotland, and Ireland; but the resources of the latter country are materially increasing, and we may anticipate that she will gradually rise to the level of Scotland and England.

(I.)—Income Tax in England, &c.

Countries.	Population.	Property Assessed to Income Tax.	Per Head.
			£ s. d.
England and Wales....	20,000,000	261,000,000	13 10 –
Scotland .....	3,000,000	30,000,000	10 – –
Ireland.....	6,000,000	21,000,000	3 6 –

It is more difficult to ascertain the proportion of taxation borne by the different classes of society, as it is almost impossible to classify the population into distinct groups. Generally speaking we have first, the upper classes, including peers, nobles, and families of high rank—in other words, the aristocracy—including also the large landed proprietors, and the wealthy classes or merchant princes, eminent professional men, &c.; second, the middle classes, viz., merchants, lawyers, artists, clerks, &c.; third, the working classes, viz., mechanics and operatives; and fourth, the poorer classes, viz., those who obtain a precarious livelihood or are in the receipt of parochial relief. Numerically, these classes may be estimated as follows:—

(K.)—Different Classes of Population.

Classes.	Number.
Upper and wealthy .....	1,000,000
Merchants, Clerks, Shopkeepers, &c. ....	9,000,000
Mechanics, Operatives .....	18,000,000
Poor.....	1,000,000

An attempt was made by the Customs and Excise authorities, to ascertain the relative quantities of tea and sugar consumed by the upper, middle, and lower classes of society, and the result was that

Of Tea the *Upper classes* were supposed to consume 17½ *per cent.*, the *Middle classes* 38 *per cent.*, and the *Poorer and Working classes* 44½ *per cent.*;

Of Sugar the *Upper classes* were believed to consume 22½ *per*

cent., the *Middle classes* 38 per cent., and the *Poorer and Working classes* 39½ per cent.

Taking these calculations for our basis, and taking into consideration the nature of the other taxes, some of which are wholly paid by the Upper and Middle classes, and other taxes in different proportions, we have the following results:—

(L.)—*Classes—Relative Burdens.*

Taxes.	Total Taxation.	Upper Classes.	Middle Classes.	Working Classes.
	£	£	£	£
<i>Customs.</i> —Tea .....	5,200,000	900,000	1,900,000	2,400,000
Sugar .....	6,000,000	1,350,000	2,230,000	2,420,000
Tobacco .....	5,500,000	1,000,000	2,000,000	2,500,000
Wine .....	2,000,000	1,000,000	1,000,000	—
Spirits .....	2,300,000	700,000	900,000	700,000
Other articles ...	4,000,000	700,000	1,500,000	1,800,000
<i>Excise.</i> — Malt and Spirits	15,000,000	3,000,000	5,000,000	7,000,000
Licences .....	1,500,000	300,000	700,000	500,000
Paper .....	1,300,000	400,000	700,000	200,000
Carriages, &c. ...	500,000	100,000	300,000	100,000
Hops .....	500,000	100,000	200,000	200,000
Stamps .....	8,000,000	3,000,000	4,500,000	500,000
Taxes .....	3,000,000	2,000,000	1,000,000	—
Income .....	7,000,000	3,000,000	4,000,000	—
Poor Rates .....	6,000,000	2,500,000	2,500,000	1,000,000
Local Rates .....	6,000,000	2,500,000	2,500,000	1,000,000
	73,800,000	22,550,000	30,930,000	20,320,000

Comparing the population of the respective classes with the taxes so levied, we have the following results:—

(M.)—*Classes—Relative Numbers.*

Classes.	Number.	Taxes.	Per Head.
		£	£ s.
Upper classes .....	1,000,000	22,550,000	22 —
Middle classes .....	9,000,000	31,000,000	3 9
Lower classes .....	18,000,000	20,000,000	1 2
Poor dependent on parochial relief .....	1,000,000	—	—

If we take the incomes of these classes at the rate of 15s. per week for the Working classes, taking five in a family, or 3s. per head, or 8l. per annum; 150l. per annum for the Middle classes, or 30l. per head; and 900l. per annum for the Upper classes, or 180l. per head, we find the incomes to be:—

(N.)—*Classes—Incomes.*

Classes.	Number.	Per Head.	Income.
			£
Upper classes .....	1,000,000	180	180,000,000
Middle „ .....	9,000,000	30	270,000,000
Working „ .....	18,000,000	8	144,000,000
			594,000,000

And the percentage of taxation to the income of the respective classes:—

Classes.	Income.	Taxes.	Per Cent.
	£	£	
Upper classes .....	180,000,000	22,500,000	12
Middle „ .....	270,000,000	31,000,000	11½
Working „ .....	144,000,000	20,000,000	14

Here then, we have the fact that a taxation of 22*l.* per head, to the upper classes, is nearly equal in proportion to income, with 3*l.* 13*s.* per head for the middle classes, and 1*l.* per head for the working classes.

We may try another mode to ascertain whether the present taxes are equitably distributed. Supposing that for the protection of personal rights and privileges, in which all share alike, the entire population should bear the burden of half of the total amount of taxes; and that for the protection of property, the middle and the upper classes should bear the other half in proportion to their incomes, viz., 180,000,000*l.* and 270,000,000*l.* respectively, or 450,000,000*l.* we should have the following results:—

(O.)—*Classes—Contributions.*

Classes.	Number.	Half of Taxation apportioned according to Number.	Half of Taxation apportioned according to Income.	Total.	Amount of Taxes actually Paid by each Class.
		£	£	£	£
Upper and wealthy	1,000,000	1,300,000	14,760,000	16,060,000	22,500,000
Middle .....	9,000,000	11,900,000	22,140,000	34,040,000	31,000,000
Working .....	18,000,000	23,700,000	—	23,700,000	20,300,000
	28,000,000	36,900,000	36,900,000	73,800,000	73,800,000

From this view of the present distribution of taxes, it will be seen that the *Upper Classes* pay an amount 6,500,000*l.* more than the



value of the protection they enjoy for their persons, privileges, and property; that the portion borne by the *Middle Classes*, is about 3,000,000*l.* less than what they ought to pay for similar privileges and protection, and that the *Working Classes* pay also 3,500,000*l.* less than they should pay in relation to their number.

Were the Income Tax levied on the higher wages of the labouring classes, and otherwise better apportioned, this inequality might perhaps be somewhat diminished. There is, doubtless, at least a fourth of the working classes in this country receiving, some 30*s.*, some 40*s.*, and some 3*l.* or 4*l.* per week, upon whom the income tax might in fairness be charged.

#### IV.—*Direct and Indirect Taxation.*

To remedy any unfairness in the distribution of taxation, and to remove the fiscal burdens which still clog international trading, it has been proposed to abolish all Customs, Excise duties, and Stamps, and to charge a uniform direct tax. But judging from the experience of all nations, and of all times, a mixed system of direct and indirect taxation appears the most convenient, if not the most advantageous, for the Government and the people. Both methods have their peculiar advantages and disadvantages. Direct taxes admit of greater clearness and certainty. They are easier collected; are less affected from indirect influences; and take from the public no more than what is actually required by the State. They possess also better elements for the equitable apportionment of public burdens, and for the more economical collection of the revenue. Yet there is much in indirect taxation to recommend it as a proper means for obtaining a portion of the revenue. To a great extent, such taxes are contributed by the people at large in fair proportion to their means and very much in relation to their peculiar habits, caprices, and modes of life. Some classes of the community could, moreover, with difficulty be reached, except by some plan of indirect taxation. To collect a small tax from all would prove a sheer impossibility. The machinery required would be quite out of proportion to the amount to be collected. To collect such taxes through the masters would be as difficult, and would be objectionable on political grounds. It is also important to have regard to the popularity or unpopularity of certain taxes. The body politic, whatever be its constitution, is often convulsed and subject to internal ebullition. When labour is scarce and food is dear, when measures of reform are retarded or political faction is rampant, then the difficulty of collecting the ordinary taxes is tenfold aggravated, and then it is that an exclusive system of direct taxation might prove a great State difficulty. A fair combination of direct and indirect taxes is more elastic and manageable, and it enables the Chancellor of the Exchequer to supply the wants of the State with greater ease and certainty, and with more extended co-operation.

In one respect indirect taxes are injurious to the community, in that somewhat more is paid by the public than is received by the Exchequer. It is, beyond doubt, that the trader and dealer charge interest and profit, not only on the price of the article, but on the duty he must pay beforehand. Every facility is, however, afforded by the Customs authorities for diminishing the loss produced by the investment of large sums in duties by allowing the articles to be kept in bond till they are actually wanted for consumption. More, I believe, cannot be done in this direction, and we must allow that the loss thus entailed upon the nation is the cost of that convenience which doubtless exists in any system of indirect taxation.

The experience of this and other countries is decidedly in favour of Indirect taxation. The present taxation of the United Kingdom is raised in the following manner:—

(P.)—Direct and Indirect Taxes.

Taxes.	Direct.	Per cent.	Indirect.	Per cent.	Miscellaneous.	Per cent.
	£	£	£	£	£	£
Customs .....	—	—	24,000,000	37	—	—
Excise .....	—	—	18,000,000	27	—	—
Stamps.....	—	—	8,000,000	12	—	—
Land and Assessed } Taxes .....	3,200,000	5	—	—	—	—
Income Tax.....	7,000,000	11	—	—	—	—
Post Office .....	—	—	3,000,000	5	—	—
Old Stores, &c. ....	—	—	—	—	2,500,000	3
	10,200,000	16	53,000,000	81	2,500,000	3

In other countries the proportion of direct and indirect taxation is as follows:—

(Q.)—Direct and Indirect Taxes.

Countries.	Direct.	Indirect.	Miscellaneous.
United Kingdom.....	16 pr. ct.	81 pr. ct.	3 pr. ct.
France .....	17 ”	63 ”	26 ”
Prussia .....	46 ”	40 ”	14 ”
Holland .....	25 ”	51 ”	24 ”
Portugal .....	23 ”	50 ”	17 ”
Spain .....	25 ”	62 ”	12 ”
Austria.....	32 ”	52 ”	16 ”
Russia .....	29 ”	32 ”	39 { Brandy monopoly.

V.—Customs Revenue—Sugar, Tea, Coffee, Tobacco, &c.

Of the Indirect taxes, the Customs are the most ancient, as well as the most productive. Since 1835, when the duties on all

articles previously collected by the Excise were assigned to the Customs, the produce of this tax has been as follows :—

(R.)—*Customs Revenue in 1834-58.*

Years.	Average Customs Received.	Percentage Increase.	Percentage Decrease.
	£	£	£
1834-1838.....	20,328,612	—	—
1839-1843.....	21,465,441	5½	2¼
1844-1848.....	20,858,830	—	1
1849-1853.....	20,629,747	—	—
1854-1858.....	21,686,225	5	—

During the entire of this period considerable reductions have been made in these duties to the extent of 14,000,000*l.*, and yet in almost all cases the revenue recovered itself in a wonderful manner,—so great has been the increase of national resources. The number of articles subject to Customs duties has also been largely reduced. In 1660 there were 1,630 articles charged with duty. In 1787 they were reduced to 1,425. In 1826, to 1,280. In 1841, to 1,052. In 1849, to 515. In 1853, to 466. And in 1855, to 414. Yet considerable improvements are required in this branch of taxation. The country has solemnly decided that the principle of protection to British industry is erroneous, and should be entirely abandoned. And also that the Customs should be collected only for purposes of revenue. If we examine the present tariff, we find that five articles only produced 86 per cent. of the whole amount received ; five more articles other 10 per cent., and 400 other articles the remaining 4 per cent. Thus we have :—

(S.)—*Customs Duties—Largest Produce.*

Sugar .....	£ 5,979,329	Corn .....	£ 582,863	Other articles of Fruit, Spices, Seeds, Manu- factured Articles, Ma- terials for manufacture, Household Articles, &c.  £1,071,200
Tea .....	5,271,702	Coffee .....	425,827	
Spirits .....	2,278,319	Currants ...	301,864	
Wine .....	1,761,738	Silk Goods....	295,073	
Tobacco ...	5,465,226	Timber .....	574,239	
	20,756,314		2,170,856	

And we are still preserving many protective duties, which not only injure, instead of benefiting, our manufacturers, but furnish the most plausible excuse to other nations for the maintenance of an exclusive commercial policy.



*Sugar* is the most productive article in the Customs revenue. We prefer drinking our tea and coffee moderately sweet; and as the consumption of these is very large, that of sugar is also great. There are consumed in the United Kingdom  $8\frac{3}{4}$  lbs. of sugar for 1 lb. of tea and coffee. In France the proportion is  $9\frac{2}{3}$  lbs. for 1 lb. of coffee. But the Belgians, generally taking their coffee without sugar, consume little more than  $\frac{1}{2}$  lb. sugar for 1 lb. of coffee.

The entire consumption of sugar in the *United Kingdom* at present, is upwards of 1,000 millions of lbs., or about 34 lbs. per head; but it is not equally distributed in the different parts of the Kingdom. In 1856, the consumption in *England* per head was 34 lbs., in *Scotland* 31 lbs., and in *Ireland* only  $8\frac{1}{2}$  lbs.,—at least such is the quantity upon which duty was paid in Ireland. As compared with foreign countries our consumption of sugar is very large. Whilst in the United Kingdom it is 34 lbs. per head, in *France* it is  $11\frac{1}{3}$  lbs. per head, in *Belgium* 21 lbs., in the *German States*  $7\frac{3}{4}$  lbs., and in *Russia* 2 lbs.

Of late years the increase of consumption in this country has been considerable. From 1801 to 1844 the consumption per head was  $17\frac{1}{4}$  lbs. From 1845 to 1849 it increased to  $22\frac{1}{2}$  lbs. From 1850 to 1854 to 29 lbs. From 1855 to 1858 to  $29\frac{2}{3}$  lbs. per head. And now it is above 34 lbs. per head. The revenue has in the same manner increased considerably, notwithstanding the great reduction of duties. From an average of 3,300,000*l.* in 1801-1814 it has advanced to 5,300,000*l.* in 1855-1858. Four leading causes have led to these results,—first, an increased prosperity amongst all classes, produced by good harvests, abundant labour, and active commerce; second, the lowering of duties and consequent cheapening of price; third, the abolition of prohibitory duties on foreign sugar; and fourth, an increased consumption of tea and coffee. Should this general prosperity continue, as there is every reason to hope; should we realize the promised reduction in the tea duties to 1*s.* per lb., we may anticipate the consumption of sugar still to increase; and with a probable population of 31,000,000 at no distant date, we may have a consumption of 11,000,000 or 13,000,000 cwts. We hope, however, that the proposed reduction of duties to the limits fixed in 1854 may speedily take place, and in such a case the revenue will probably not exceed 6,500,000*l.* Should the reduction be further postponed the produce of the sugar duties may be expected to reach nigh 8,000,000*l.*

The progressive consumption of, and Revenue for, SUGAR, has been as follows:—

(T.)—*Sugar—Revenue and Consumption, 1801-59.*

Years.	Quantity of Sugar annually consumed in the United Kingdom.	Net Revenue arising from Sugar after the deduction of Drawbacks and Bounties.	Average Rate of Duty per Cent. Paid by the Consumer.		Average Price per Cwt. in Bond.		Average Price per Cwt. inclusive of Duty.		Population of the United Kingdom.	Average Quantity consumed by each Individual of the Population.	Average Revenue Paid by each Individual.
	Cwts.	£	s.	d.	s.	d.	s.	d.		lbs. oz.	s. d.
1801-1804	2,847,519	3,362,702	26	2	48	1	74	3	17,256,000	18 7	3 10
1815-1819	2,854,638	3,649,787	29	2	50	3	79	5	19,765,000	16 3	3 8
1820-1824	3,385,700	4,244,899	27	4	32	11	60	3	21,335,000	17 12	3 11
1825-1829	3,657,745	4,735,315	27	4	33	—	60	4	22,903,000	17 14	4 1
1830-1834	3,941,653	4,557,219	24	6	27	1	51	7	24,328,000	18 2	3 9
1835-1839	3,903,260	4,565,311	24	1	36	4	60	5	25,653,000	17 1	3 7
1840-1844	3,935,712	4,943,574	25	2	38	7	63	9	27,023,000	16 5	3 7
1845-1849	5,614,057	4,069,199	14	6	28	5	42	11	27,929,000	22 8	2 11
1850-1854	7,154,461	4,116,566	11	6	23	11	35	5	27,595,000	29 1	2 11
1855-1859	7,800,000	5,500,000	14	—	31	—	45	—	28,500,000	31 —	3 6
1859	9,000,000	6,000,000	14	—	—	—	—	—	29,000,000	34 —	—
*1860-1864	10,000,000	6,000,000	12	—	—	—	—	—	30,000,000	38 —	—
*1865-1869	12,000,000	6,000,000	10	—	—	—	—	—	32,000,000	40 —	—

The consumption of tea is of comparatively recent date; yet the article has become most indispensable to both noble and peasant. No article of food could be more universally popular among the working classes than tea and sugar: they are with them, next to bread, the first necessities of life. In late years the consumption has greatly increased, and by gradual steps, from 1 lb. 4 oz. in 1820-1824, it has advanced to nearly  $2\frac{1}{2}$  lbs. per head. But it is not equally distributed throughout the Kingdom. In 1856, when the average was  $2\frac{1}{4}$  lbs., there were consumed in *England*  $2\frac{1}{2}$  lbs., in *Scotland* 2 lbs. 3 oz., and in *Ireland* 1 lb. 7 oz. Lately, however, the consumption of tea in Ireland has been advancing even more rapidly than in England and Scotland. The contemplated reduction of duty to 1s. per lb. will, doubtless, give a further stimulus to the consumption of tea; and judging from the limits it has already attained, we may well anticipate the average consumption per head to reach 3 lbs., or in 32,000,000 of people, 96,000,000 lbs.; the revenue meanwhile sustaining a loss, or more properly maintaining itself, at somewhat the present amount. If no reduction takes place from the present limit of 1s. 5d. per lb., we may expect the revenue to increase to 6,500,000l. and upwards.

The progress of the consumption of, and Revenue from, *Tea*, has been as follows:—



(U).—*Tea—Revenue and Consumption, 1801-59.*

Years.	Quantity of <i>Tea</i> annually consumed in the United Kingdom.	Amount of Duty Received.	Average Rate of Duty per lb. Paid by the Con- sumer.	Average Price per lb. in Bond.	Average Price per lb., inclusive of Duty.	Population of the United Kingdom.	Average Quantity consumed by each Indi- vidual of the Popu- lation.	Average Revenue Paid by each Indi- vidual.
	lbs.	£	s. d.	s. d.	s. d.		lb. oz.	s. d.
1801-1804	24,016,235	1,896,235	1 7	3 0	4 7	16,093,000	1 8	2 4
1805-1809	23,325,495	3,560,274	3 $-\frac{3}{4}$	3 $3\frac{1}{4}$	6 4	17,147,000	1 6	4 2
1810-1814	24,264,940	3,791,983	3 $1\frac{1}{2}$	3 $4\frac{1}{2}$	6 6	18,295,000	1 5	4 —
1815-1819	24,997,373	3,682,890	2 $11\frac{1}{4}$	3 $-\frac{1}{4}$	5 $10\frac{1}{2}$	19,765,000	1 4	3 9
1820-1824	26,956,571	3,784,906	2 $9\frac{3}{4}$	2 10	5 $7\frac{3}{4}$	21,335,000	1 4	3 6
1825-1829	29,402,033	3,649,044	2 $5\frac{3}{4}$	2 $5\frac{1}{2}$	4 $11\frac{1}{4}$	22,907,000	1 5	3 2
1830-1834	31,678,328	3,455,064	2 $2\frac{1}{2}$	2 $2\frac{1}{2}$	4 $4\frac{3}{4}$	24,328,000	1 5	2 11
1835-1839	36,764,065	3,750,328	2 $-\frac{1}{2}$	1 8	3 $8\frac{1}{2}$	25,653,000	1 7	2 11
1840-1844	37,588,274	4,093,465	2 $2\frac{1}{2}$	1 $10\frac{1}{2}$	4 $-\frac{3}{4}$	27,023,000	1 6	3 2
1845-1849	47,200,093	5,162,653	2 $2\frac{1}{4}$	1 1	3 $3\frac{1}{4}$	27,929,000	1 11	3 8
1850-1854	56,124,305	5,589,140	2 —	1 $2\frac{1}{2}$	3 $2\frac{1}{2}$	27,595,000	2 1	4 3
1855-1859	69,000,000	5,300,000	1 6	1 5	2 11	28,500,000	2 8	3 8
1859	76,000,000	5,600,000	1 6	—	—	29,000,000	2 8	—
1860-1864	82,000,000	5,000,000	1 4	—	—	30,000,000	2 12	—
1865-1869	96,000,000	5,000,000	1 —	—	—	32,000,000	3 —	—

The consumption of *Coffee* is also advancing in proportion to population, but a decided preference is generally given to tea among all classes, and little improvement in the revenue can therefore be expected under this head; probably the consumption may increase from 35,000,000 lbs. to 40,000,000 lbs., and the revenue from 500,000*l.* to 600,000*l.*

The most important article in the Customs revenue is *Tobacco*. The present duty of 3*s.* per lb., which has been maintained since 1831, with 5 per cent. additional is certainly high in proportion to the price of tobacco, yet the value of snuff and cigars is greatly enhanced by the manufacture, and a reduction of duty would not affect materially the price of these articles. Viewed, moreover, in connection with the morals of the people, it appears inexpedient to offer greater encouragements to the consumption of such narcotic. Already 9,000,000*l.* per annum are spent in tobacco in the United Kingdom. The consumption of tobacco is likely to continue steadily at the present rate, and as we have seen, with an increase of population reaching probably to 30,000,000 in 1861-65, and 32,000,000 in 1865-69, the quantity consumed may increase to 36,000,000 lbs. in the former period and 40,000,000 lbs. in the latter, and the revenue



to 6,000,000*l.* and 6,500,000*l.* respectively. The progress of Consumption and of Revenue from this article has been as follows:—

(V.)—*Tobacco—Revenue and Consumption, 1801-59.*

Years.	Quantity Consumed.	Population.	Per Head.	Revenue.	Revenue per Head.
	lbs.		lb.	£	s. d.
1801.....	17,000,000	16 mlns.	1'06	1,200,000	1 6
1811.....	21,000,000	18 „	1'18	1,250,000	1 4
1821.....	15,000,000	21 „	—'71	3,100,000	2 11
1831.....	19,500,000	24 „	—'81	3,000,000	2 10
1841.....	22,000,000	27 „	—'82	3,500,000	2 7
1851.....	28,000,000	27½ „	1' 1	4,500,000	3 3
1858.....	34,000,000	29 „	1'17	5,500,000	3 9
1859.....	35,000,000	29 „	1'21	—	—
*1860-1864.	36,500,000	30 „	1'21	6,000,000	—
*1865-1869.	40,000,000	32 „	1'21	6,500,000	—

*Wine* next claims our attention. It is an important fact, that in the present century, notwithstanding the great increase of prosperity, the consumption of wine has actually decreased in proportion to population, and the revenue, which was 2,000,000*l.* in 1801, has decreased to 1,800,000*l.* in 1858. Can we attribute this decrease to improving habits of sobriety? The consumption of spirits does not warrant us to come to such a conclusion. The race of six bottle men may be extinct; cases of excess may be much lessened; but the legitimate use of wine has not been abandoned. The high duty, however, limits the consumption to the finer and dearer qualities, and at their high prices it is only the upper and wealthy classes that can afford to buy them. I am not prepared to state that the working classes would prefer a glass of light *vin ordinaire* to a tumbler of strong beer or London stout; but a large portion of the middle classes would. Until we provide for the extension of the consumption of wine among these classes, numbering upwards of 9,000,000 of people, the revenue will never improve, and a reduction of duty is, perhaps, the only way we can suggest to bring wine within their reach. At first such a reduction should be from 5*s.* 9*d.* to 3*s.* per gallon, but such a reduction will produce a considerable loss on the revenue, and it will not sufficiently cheapen the article to produce any decided revolution in the consumption, so that we will be driven to go still lower. To admit the inferior qualities, the *vin ordinaire*, at 1*s.*, and the finer qualities at the present rate, we would have the disadvantage and difficulties connected with the levying of an *ad valorem* duty, which is so liable to evasion.

How far the very inferior qualities will stand a sea voyage, however short, or bear this cold and damp climate remains to be seen. With a reduction of duty to 3s. per gallon we may then anticipate loss in the revenue in the first year of 800,000*l.*, but on the second and third years the consumption would probably increase considerably, and in the course of a few years the revenue may probably not only recover, but far exceed the present amount. The consumption of, and revenue from, *Wine* has been as follows:—

(W.)—*Wine—Revenue and Consumption, 1801-59.*

Years.	Quantity Consumed.	Population.	Per Head.	Revenue.	Revenue per Head.
	Gals.		Gals.	£	s. d.
1801.....	7,000,000	16 mlns.	·44	2,000,000	2 4
1811.....	6,000,000	18 „	·35	2,200,000	2 5
1821.....	5,000,000	21 „	·26	1,800,000	1 9
1831.....	5,500,000	24 „	·27	1,360,000	1 1½
1841.....	6,200,000	27 „	·25	1,700,000	1 3
1851.....	6,500,000	27½ „	·23	1,800,000	1 4
1858.....	6,300,000	29 „	·21	1,800,000	1 2
1859.....	7,400,000	29 „	·26	1,900,000	—
*1860-1864.	10,000,000	30 „	·40	1,500,000	—
*1865-1869.	18,000,000	32 „	·60	2,200,000	—

The revenue from *Foreign and Colonial Spirits* has been decreasing within the last fifty years, nor can we anticipate any improvement having regard to the habits of the people. The progress of consumption of, and revenue from, *Foreign and Colonial Spirits* has been as follows:—

(X.)—*Foreign and Colonial Spirits—Revenue and Consumption, 1801-59.*

Years.	Foreign Spirits Consumed.	Colonial Spirits Consumed.	Total.	Population.	Per Head.	Revenue.	Revenue per Head.
	Gals.	Gals.	Gals.		Gals.	£	s. d.
1801.....	2,500,000	3,100,000	5,600,000	16 mlns.	·35	2,700,000	2 6
1811.....	1,100,000	3,200,000	4,300,000	18 „	·23	3,200,000	3 6
1821.....	1,000,000	3,300,000	4,300,000	21 „	·15	2,700,000	2 10
1831.....	1,300,000	3,600,000	4,900,000	24 „	·20	3,000,000	2 6
1841.....	1,200,000	2,300,000	3,500,000	27 „	·12	2,400,000	1 8
1851.....	1,900,000	2,900,000	4,300,000	27½ „	·17	2,500,000	1 1
1858.....	1,100,000	3,400,000	4,500,000	29 „	·15	2,300,000	— 9
1859.....	1,300,000	3,500,000	4,800,000	29 „	—	—	—
*1860-1864.	1,500,000	3,000,000	4,500,000	30 „	·15	2,500,000	—
*1865-1869.	1,500,000	3,000,000	4,500,000	32 „	·15	2,500,000	—

It is interesting to find that the present duty of 1s. per quarter on *Corn* produces an amount of revenue fully equal to that obtained under sliding scales and prohibitory duties. From 1830 to 1839 the average amount of revenue from corn, grain, and meal was 400,000*l.* From 1840 to 1849 it amounted to 700,000*l.*, and from 1850 to 1859, 500,000*l.* But whilst from 1840 to 1847 the average importation was 3,000,000 quarters, from 1848 to 1859 the average importation has been 9,000,000 quarters. The amount of revenue in late years has been pretty uniform at about 500,000*l.*, and we may anticipate a similar amount for the future.

The remaining portion of *Timber duties* should be abolished. Our shipowners have as much right to obtain the raw material free of duty as our manufacturers their wool and their cotton, and for building purposes it is quite necessary to allow wood to be imported free of duty.

The duties on *Eggs, Butter, and Rice* should be abolished in the same manner as we have abolished the duties on meat and other articles of food.

The duty on *Currants* is too high, and might be advantageously reduced.

And all duties on *Manufactured Articles* should be abolished. On *Silk* manufacture a protective duty of 15 per cent. is still levied, and though by the introduction of perfect free trade the British might not be able to compete with the French in the finer description of silk goods in consequence of the richness of their designs and colours and the fineness of their materials, in the lower description of silk goods, and especially in silk and worsted, and silk and cotton goods the British will preserve, and perhaps assert, a decided superiority in the markets of the world.

These are the principal reforms required in our Customs duties. We shall now pass to the Excise.

#### VI.—*Excise Revenue—Spirits, Malt, Paper, Licenses, &c.*

The produce of Excise Duties since 1834, has been as follows:—

##### (Y.)—*Excise Revenue, 1834-58.*

	£		£
1834-1839 .....	13,949,000	1850-1854 .....	14,583,000
1840-1844 .....	13,267,000	1855-1858 .....	16,727,000
1845-1849 .....	13,587,000		

Within the last thirty years the Excise Revenue has undergone considerable changes. The duties on Salt, Glass, Soap, Vinegar,



Hides, Candles, Printed Cotton and Silk, Tiles, Bricks, &c., have been *abolished*. The Excise duties are now limited to *Spirits, Malt* and *Hops, Paper, Licenses*, and taxes on *Locomotion*.

From spirits and malt alone an amount of 14,000,000*l.* out of 17,000,000*l.*, are now obtained, but of all duties this is certainly the least objectionable. The excessive use of *Spirits* has been at all times a source of regret and disquietude. Such is the physical and moral deterioration accruing from the abuses of alcoholic liquors, and the crimes and wretchedness which they engender, that we cannot wonder that the legislature has often been induced to take measures towards the diminution of so great a national evil. But if it be impossible to introduce sobriety by law, it would surely be most inexpedient to abolish all duties on spirits, giving thereby almost a premium on intemperance. It is, in fact, a principal recommendation of a system of indirect taxes, that it affords the means for setting some restraint upon the use of articles injurious to the welfare of the people. A higher duty than is now levied would perhaps defeat its own end by the encouragement it would give to smuggling, but the maintenance of the present tax is certainly demanded by every consideration of morals and national economy.

The consumption of British Spirits within the last fifty years has been as follows :—

(Z.)—*British Spirits—Revenue and Consumption, 1801-59.*

Years.	Number of Gallons.	Population.	Per Head	Revenue.	Revenue per Head.
			Gal.	£	s. d.
1801.....	3,200,000	16 mlns.	·20	720,000	1 —
1811.....	13,000,000	18 „	·12	3,000,000	3 4
1821.....	13,000,000	21 „	·46	4,000,000	3 9
1831.....	22,000,000	24 „	·90	5,000,000	4 2
1841.....	21,000,000	27 „	·77	5,000,000	3 8
1851.....	24,000,000	27½ „	·87	6,000,000	4 5
1858.....	23,200,000	29 „	·80	9,000,000	6 2
*1860-1864 ....	24,000,000	30 „	·30	9,500,000	—
*1865-1869 ....	22,500,000	32 „	·30	9,000,000	—

If we bear in mind the progress and popularity of the temperance movement, and the increasing aversion to strong drink, we cannot help thinking that in time the revenue from spirits may suffer considerably, but with the increase of population we may expect for some years to come the revenue to be very productive.

Besides the large revenue from spirits, a considerable amount

is also derived from *Malt*; ale and porter being decidedly popular beverages, especially in England. Upwards of 4,000,000 qrs. of grain are now employed in making beer. Calculating  $3\frac{1}{2}$  barrels of beer for each quarter, and 36 gallons for each barrel, we have the enormous quantity of 490,000,000 gallons, or an average consumption of nigh 19 gallons per head. The progress of consumption and revenue has been as follows:—

(AA.)—*Malt—Revenue and Consumption, 1801-59.*

Years.	Bushels, charged with Duty.	Population.	Per Head.	Revenue.	Revenue per Head.
				£	
1801.....	20,000,000	16 mlns.	1·25	1,300,000	1 7
1811.....	30,000,000	18 „	1·64	6,300,000	6 10
1821.....	29,300,000	21 „	1·40	4,300,000	4 1
1831.....	29,300,000	24 „	1·62	5,000,000	4 2
1841.....	36,000,000	27 „	1·35	5,000,000	3 8
1851.....	40,000,000	27½ „	1·46	5,000,000	3 7
1858.....	48,000,000	29 „	1·55	5,400,000	3 8
*1860-1864 ....	48,000,000	30 „	1·65	5,600,000	—
*1865-1869 ....	52,000,000	32 „	1·65	6,000,000	—

Without anticipating any material change in the consumption of malt, we may well expect some important improvement in this source of revenue.

The tax on *Paper* may be considered as the last burden on English manufactures, whilst it is a tax on the diffusion of knowledge, and on every ground objectionable. *Paper* is an article of primary necessity. By it the great national correspondence is carried on as represented by the 500,000,000 letters, which yearly pass through the British Post Office. By it the discoveries of science and the products of genius are conveyed fresh from the reservoir of thought and observation to the stream of popular intelligence. By it the press daily sends forth a flood of political and social information, which animates and strengthens the life of the nation, and educates the masses in their rights and duties as members of a free state. It is by paper that the annals of the nation, and the records of families, are carefully preserved. The walls of our houses are covered with paper. Elegant articles of furniture are also of paper, and as a covering for parcels and baggages, and in a thousand ways paper enters into the innermost economy of life. The present duty adds but little to the cost of writing paper, yet it acts as a serious discouragement to the

extension of cheap popular literature, adds materially to the cost of heavy packing paper, greatly used in the exportation of hardware, and hinders the increase of export of stationery. For these and many other reasons the paper duty should, as speedily as possible, be completely abolished. The consumption of, and revenue from, paper, has been as follows:—

(BB.)—Paper—Revenue and Consumption, 1801-59.

Years.	Quantity.	Population.	Per Head.	Revenue.
1801.....	lbs. 36,000,000	16 mlns.	lbs. 2 28	£260,000
1811.....	44,000,000	18 „	2 44	500,000
1821.....	52,300,000	21 „	2 49	600,000
1831.....	68,000,000	24 „	2 82	700,000
1841.....	97,000,000	27 „	3 50	600,000
1851.....	150,000,000	27½ „	5 49	1,000,000
1858.....	176,000,000	29 „	6 50	1,140,000
1859.....	198,000,000	29 „	6 80	

Another objectionable and vexatious tax is the *License Duty*. The only cases where such duties should be maintained are where any administrative control is absolutely required for the exercise of certain industries. Therefore, all license duties, except on beer, wine, and spirit dealers, should be abolished.

The produce of this tax has been as follows:—

(CC.)—Licenses—Revenue, 1801-69.

£		£	
1801 .....	290,000	1851 .....	1,100,000
1812 .....	460,000	1858 .....	1,400,000
1821 .....	825,000	*1860-1864.....	800,000
1831 .....	900,000	*1865-1869.....	800,000
1841 .....	1,000,000		

Of the present amount, however, nearly 1,000,000*l.* are derived from spirit dealers, wine dealers, brewers, and maltsterers, and the remainder from auctioneers, paper makers, soap makers, tea and coffee dealers, tobacco dealers, &c.

The taxes on *locomotion* might be considered objectionable, inasmuch as they throw obstacles on the movement of persons and merchandise, so essential to the progress of common prosperity, but as we cannot say that such taxes press heavily on any great interest, there is no valid reason for urging their abolition.

The alterations required in the Excise, consist, therefore, mainly in the abolition of the paper duties, and in restricting the license



duties. The other branches are likely to produce an improving but not greatly increasing revenue.

VII.—*Stamps Revenue:—Fire Insurance, Probate and Legacies, &c.*

By the political economist, *Stamp Duties* affecting the transference of property are also regarded as objectionable, but like other taxes they are the creatures of necessity, and if abolished the amount would have to be levied in some other manner, perhaps much more irksome. The produce since 1816, has been as follows:—

(DD.)—*Stamp Duties, 1816-58.*

Years.	Amount. £	Years.	Amount. £
1816-1825 .....	6,300,000	1846-1855 .....	7,000,000
1826-1835 .....	7,000,000	1856-1858 .....	7,300,000
1836-1845 .....	7,000,000		

The revenue from stamp duties in the year ended 31st March, 1859, amounted to 8,200,000*l.*, distributed as follows:—

(EE.)—*Stamp Duties—Details, 1858.*

1858-9.	England.	Scotland.	Ireland.	United Kingdom.
	£	£	£	£
Deeds and other Instruments ....	1,138,239	124,323	91,313	1,353,875
Probates of Wills and Legacies	3,052,286	268,678	228,947	3,549,911
Fire Insurance and Marine .....	1,578,434	112,765	68,315	1,759,514
Commercial Stamps .....	800,286	100,926	85,320	986,522
Licences, &c. ....	173,361	30,219	14,920	218,500
Other Stamps .....	289,847	22,277	66,886	379,010
	7,032,453	659,188	555,701	8,247,342

The duty on *Fire Insurance* claims first our attention as a duty on frugality and prudence. An apology for this tax has been made in the report of M. Coode, on the ground mainly of the slight burden thereby imposed on property. This tax, he said, “is one which can “in no case exceed  $\frac{3}{1000}$ th of a penny in the pound, or the  $\frac{1}{667}$ th “part of the value of the property insured, and it varies in actual “practice from that which is a very unusually high proportion, to “about one farthing in the pound, or the  $\frac{1}{1000}$ th part of the “value, the more usual amount, to a sixth or a ninth of a penny “in the pound, or the 2,000th part of the value of the property.” The reason why this tax falls light, is, in fact, not because the rate is low, but because the largest amount of property is uninsurable or uninsured. But this is in a great measure the very grievance of the tax. The owners of small tenements are

thereby discouraged from insuring, and those who do insure, value their property much lower than they would otherwise do. The same observations to a certain extent apply to marine insurance. The practice of not insuring at all, is gaining ground. Some idea may be formed of the extent of this practice, from the fact that the proportions of vessels uninsured, to the number wrecked in 1858, was  $19\frac{3}{4}$  per cent., against  $15\frac{1}{2}$  per cent. in 1857. The proportion of vessels insured, to the number of wrecks, was 52 per cent. in 1857; and 40 per cent. in 1858. The following is the produce of such taxes since 1821:—

(FF.)—*Duties on Fire and Sea Insurance, 1821-64.*

	Sum Insured, including Farming Stock.	Fire Insurance. (Duty)	Marine Insurance. (Duty)	Total.
	£	£	£	£
1821 E. and W.	399,000,000	643,305	223,650	866,955
1831 E. and W.	499,000,000	828,563	225,493	1,054,056
1841 .....	738,000,000	1,011,636	287,762	1,297,398
1851 .....	858,000,000	1,190,506	174,148	1,364,654
1858 .....	1,053,765,000	1,472,443	287,071	1,759,512
*1860-1864 .....	—	1,500,000	300,000	1,800,000

This important item, amounting to nearly 2,000,000*l.* must certainly be remitted, and therefore, no calculation of its further progress beyond 1864 need to be made.

The *Legacies and Succession Duties*, together with those on probates of wills and letters of administration, are growing from year to year. The mode by which this tax is calculated is certainly favourable to the landed interest, but taking all the taxation together, no one can say that the upper classes are exempted from their just share of taxes. The produce has been as follows:—

(GG.)—*Legacy and Probate Duties.*

Years.	Probate of Wills.	Legacies and Succession.	Total.
	£	£	£
1821.....	823,847	979,419	1,803,266
1831.....	918,667	1,163,812	2,082,479
1841.....	1,012,482	1,209,126	2,221,608
1851.....	1,063,401	1,315,282	2,378,682
1858.....	1,338,089	2,211,822	3,549,911
*1860-1864	1,500,000	2,500,000	4,000,000
*1865-1869	1,800,000	2,700,000	4,500,000

The *stamp duties on Deeds* and other instruments were considerably reduced, and, therefore, they show some decline from the commencement of the century; they are now, however, gradually recovering. The following are the sums received:—

(HH.)—*Stamp Duties on Deeds.*

Years.	Amount. £	Years.	Amount. £
1811 .....	2,526,377	1851 .....	1,172,357
1821 .....	2,304,021	1858 .....	1,353,875
1831 .....	1,509,963	*1860-1864 .....	1,500,000
1841 .....	1,702,928	*1865-1869 .....	1,800,000

In *Commercial Stamps* including bills of exchange, receipts, and drafts, and bankers' notes and composition duty, the revenue is improving, notwithstanding the great change in the mode of levying the tax by the introduction of the penny system. The following is the amount of the revenue from these various branches:—

Years.	Amount. £	Years.	Amount. £
1821 .....	1,074,730	1858 .....	986,532
1831 .....	905,224	*1860-1864 .....	1,200,000
1841 .....	932,087	*1865-1869 .....	1,500,000
1851 .....	996,981		

The other branches of stamp duties are gold and silver plate, newspapers, and *Licenses and Certificates*, altogether producing about 450,000*l.* per annum.

The other kind of tax we have now to speak of, which affects almost exclusively the upper classes of society, are taxes on *Land, Houses, and Luxuries*. The produce of these taxes has been declining considerably of late, partly from the redemption of a good portion of the land tax, and partly from the abolition of the window tax.

The following is the amount received from this source since 1825:

(II.)—*Land and House Taxes.*

	£		£
1825-1834 .....	4,884,368	1855-1858 .....	2,971,671
1835-1844 .....	4,045,175	*1860-1864 .....	3,000,000
1845-1854 .....	3,894,576	*1865-1869 .....	3,000,000

VIII.—*Income and Property Tax.*

By far the most difficult branch of our present taxation is the Income and Property Tax. A tax on income primarily demands of each individual a frank and honest declaration of his resources. Without his co-operation the tax becomes either altogether nugatory or eminently arbitrary and oppressive. Unfortunately this co-operation has never been obtained, and the consequence has been, that



on the one hand we have the most barefaced misrepresentations of individual incomes, and on the other, bitter complaints of inquisitorial and arbitrary proceedings. Two principal objections are raised to this tax as it is now levied, which must be removed to render it at all palatable to the community. First, a difference should be made in the rate levied between permanent and uncertain incomes. Second, a partial capitalization should be made of incomes from lands, houses, consols, annuities, &c., in order to obtain a more equitable distribution of the tax. The capitalization of all industries would, I believe, be extremely difficult, and in its results it might prove perhaps much more objectionable than the present system. But it would be easy to effect such capitalization with respect to property of known valuation, and that would remove a very reasonable source of complaint. On the other hand, if we could, by assenting to the popular demand of levying a lesser tax on precarious incomes under Schedule D, secure more honest returns of such income, the revenue would gain rather than lose. The exemptions under Schedule A are far too sweeping. A large amount of property is now exempt as unproductive, though it may be held for beneficial purposes or for enjoyment. As a whole, the present income and property tax possesses many claims for public acceptance, and with some modifications it is likely to become a permanent source of revenue. The produce of the tax since 1843 has been as follows :—

(KK.)—*Income Tax*, 1843-58.

Years.	Property Assessed.	Revenue.
	£	£
1843-1846 .....	248,000,000	5,450,000
1847-1850 .....	256,590,000	5,620,000
1851-1854 .....	272,000,000	6,060,000
1854-1858 .....	309,000,000	11,160,000

The produce of the last five years has greatly increased in consequence of the high rate imposed during the war. By the capitalization above suggested at a permanent rate of 1*l.* 10*s.* per 1,000*l.* on all *capitalized* property under Schedules A, B, C, E, and 5*d.* on *industrial* resources under Schedule D, the produce would be as follows :—

(LL.)—*Income Tax—Capitalizing Scheme.*

Scheduled Amount of Property.	Kind of Property.	Value.	Capitalized Amount. Value.	Percentage.	For Taxation.
£			£		
A 50,000,000	Lands	30 yrs. purchase	1,500 mlns.		
50,000,000	Messuages	16 „	800 „		
22,000,000	{ Other Property, } { Railway, Canal, }	20 „	440 „		
B 50,000,000	Land, &c.	20 „	100 „		
C 28,500,000	{ Dividends, } { Annuities }	25 „	700 „		
E 20,000,000	Salaries .....	10 „	200 „		
220,500,000			3,740 „		
		Probable in- crease 10 per cent. in 7 years .....	370 „		
			4,110 „	{ £1 10s. per £1,000 }	6,100,000
D 90,000,000	{ Likely to be £130,000,000 at 5 <i>d.</i> , equal to 6½ per cent. on income .....				2,700,000
310,500,000					8,800,000

On the revenue from the Post Office I have not dwelt, because it cannot be considered a tax. If, on the one hand, it produces a net revenue of 1,300,000*l.*, we must remember that the State pays large sums, amounting to 1,000,000*l.*, for the conveyance of mails to distant colonies; so that in fact little or no gain results from this source.

IX.—*Prospective Changes.*

Allow me now to sum up the various observations I have been permitted to make on the present condition of British taxation in a few leading conclusions.

1. That having regard to the vast and increasing resources of the United Kingdom, the present amount of taxation cannot be considered as a hindrance to the development of national wealth.

2. That considerable approach has been made towards the equitable Distribution of taxation in the United Kingdom among all classes of society.

3. That it does not seem expedient to alter the present mode of raising the revenue by direct and indirect taxes.

4. That it is desirable to charge Customs duties upon as few articles as possible, and these the most productive to the revenue.

5. That the remaining duties on Raw materials, and the protective duties on silk manufacture and other articles, should be abolished.

6. That it is desirable to realize as speedily as possible, the contemplated reduction in the Tea and Sugar duties.

7. That the Wine duty should be considerably reduced.

8. That the Paper duty should be abolished.

9. That the duties on Fire and Marine insurance are likewise condemned as taxes on prudence and thriftiness.

10. That many of the Licence duties should be remitted.

11. That the Income and Property tax should be revised, with a view to the capitalization of the incomes under Schedules A, B, C, and E; the extension of the tax to landed property kept for enjoyment or other uses; and the reduction in the rate on incomes under Schedule D, including under it the incomes obtained in higher wages by skilled workmen.

If we put the modifications thus suggested side by side with the estimated increasing productiveness we have the following results:—

(MM.)—*Revenue—Prospective Changes.*

Taxes.	1858.	1860-1864.	1865-1869.
<i>Customs.</i>	£	£	£
Tea .....	5,300,000	5,000,000	5,000,000
Sugar .....	6,000,000	6,000,000	6,000,000
Tobacco .....	5,900,000	6,000,000	6,500,000
Wine .....	1,800,000	1,500,000	2,200,000
Spirits .....	2,300,000	2,500,000	2,500,000
Corn .....	600,000	500,000	500,000
Coffee .....	—	500,000	600,000
Fruit .....	400,000	400,000	400,000
Raw Materials, &c., &c. ....	700,000	—	—
Manufactures .....	450,000	—	—
Butter, Cheese .....	220,000	—	—
	23,670,000	22,400,000	23,700,000
<i>Excise.</i>			
Spirits .....	9,000,000	9,500,000	9,000,000
Malt .....	5,400,000	5,600,000	6,000,000
Paper .....	1,100,000	—	—
Licences .....	1,400,000	800,000	800,000
Hops .....	400,000	400,000	—
Railways .....	300,000	400,000	500,000
Stage Carriages .....	100,000	100,000	100,000
Other articles .....	300,000	300,000	—
	18,000,000	17,100,000	16,400,000



(MM.)—*Contd.—Revenue—Prospective Changes.*

	1858.	1860–1864.	1865–1869.
<i>Stamps.</i>	£	£	£
Legacies, Probates .....	3,500,000	4,000,000	4,500,000
Fire and Marine Insurance.....	1,800,000	1,800,000	—
Deeds .....	1,350,000	1,500,000	1,800,000
Commercial Stamps .....	1,000,000	1,200,000	1,500,000
Licences .....	200,000	—	—
Other Stamps .....	400,000	400,000	—
	8,250,000	8,900,000	7,800,000
Assessed Taxes .....	3,200,000	3,100,000	3,000,000
Post Office .....	1,300,000	1,500,000	1,600,000
Income Tax.....	6,600,000	7,100,000	9,000,000
	11,100,000	11,600,000	13,600,000
	61,020,000	60,000,000	61,500,000

X.—*Conclusions.*

Such are the prospects of the British Revenue. We have now some idea of the taxes likely to be abolished, but let us not be hasty in anticipating an immediate emancipation from such burdens. As the increase in the productiveness of taxes is necessarily gradual, so we must proceed gradually in the abolition of those which are objectionable. We should look for the early removal from the British tariff of the 400 articles which produce some 700,000*l.* customs revenue. The pledge given with respect to tea and sugar duties should be redeemed now that the exigencies of the war are no longer pressing. The paper duty is most loudly complained of and should next be removed. Then an attempt should be made to revise the wine duties; and afterwards we should go on removing the fire and marine insurance duties. Meanwhile, the mode of levying the income and property tax should most seriously engage public attention, as the present tax is about to expire.

Great changes may thus be anticipated. In dealing with our system of taxation it is necessary to bear in mind the different questions affecting the public expenditure. We should explore the state and prospects of our relations with foreign powers which govern the army and navy expenditure, and we should take into account the saving soon to be realized in the interest of the public debt by the falling due of certain annuities. We must also remember that the calculation of increase on certain sources of revenue are based on the assumption that the present state of

prosperity will continue. A cloud in the political atmosphere, or a bad harvest, might greatly disturb all our prospects. Let us hope that no untoward event may intervene, and that the calculations founded on the experience of the last fifty years may be fully and happily realized.

*Note.*—The Budget presented by the Chancellor of the Exchequer (Mr. Gladstone) on Friday, 10th February, 1860, realises, in many respects, the reforms suggested in this Paper. The Customs duties are to be reduced to forty-four articles. All import duties on manufactures, as well as on tallow, soap, &c., being abolished. The duties on currants and timber are also to be considerably reduced; and, in consequence of a Treaty of Commerce just concluded with France, the Wine duties are to be reduced to 3s. till the 31st of March, 1861, and after that time to 2s., and 1s. per gallon; and the duty on brandy to 8s. 2d. per gallon. The Paper duty is also to be abolished. In order, however, to meet an expenditure for the year, amounting to 70,000,000*l.*, additional taxes are proposed to be levied, such as the continuation of the present duties on Tea and Sugar; Stamp duties on Contract Notes, Dock Warrants, Extracts of Births, Deaths, and Marriages, Bills, Drafts, or Orders, whether delivered to the payers or not, Cost Books, Heritable bonds, Agreements for leases, &c.; and Probate duty in respect of all personal estate left with power of appointment. The time limited for the payment of the duty on Malt is to be six weeks in lieu of twelve weeks. A duty is to be imposed on Chicory of 3s. per cwt. till the 1st of August, 1860, and of 6s. after that day; and whilst granting permission to all Eating Houses to sell Wine, a License duty is to be imposed on all Refreshment Houses. Lastly, the Income Tax is to be continued for one year at the rate of 10*d.* in the pound upon incomes above 150*l.*, and of 7*d.* on incomes below that sum.—*February 17, 1860.*

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*On the RECENT and RAPID Progress of the BRITISH TRADE with  
INDIA. By RICHARD VALPY, Esq.*

[Read before Section (F), Economic Science and Statistics, at the Meeting of the  
British Association, 20th September, 1859.]

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I.—*Introduction.*

AT a time when the finances of British India are not in a very flourishing state, and doubts have arisen as to the future of the British rule in that country, it will not be without interest to take a glance at the state of the commercial intercourse between England and India. If in addition to great financial embarrassment, the supply of the products of India was diminishing in the British markets, and there was a decreasing consumption of British manufactures in India, there would indeed be grounds for questioning the value of India as a part of the British Empire. The British trade with India is happily not in a declining state; it is rapidly increasing and promises to assume a magnitude which must influence most favourably the future prosperity both of India and England.

It is generally well known that, by far the largest trade carried on between England and any single country, is with the United States, but perhaps it is less well known, and not very generally supposed, that with continental India, our commerce is now second only to that with the thriving and wealthy United States of America. The immense supply of cotton which the Americans are able to send us, places the imports from the United States much in advance of those from India, but, in our export trade to these two countries there is far less difference. In the last year, 1858, the exports of British produce from England to India amounted to 16,782,515*l.*, and exceeded those to the United States, which were not more than 14,510,616*l.*, a low amount, it is true, for the United States. Still the comparison assists us to an estimate of the present extent of our trade with India. The year 1859 promises to show a large increase in our exports, both in our great Western and Eastern trades, and the result will probably be but little in favour of the United States. In the first six months of 1859, the value of British produce exported has been 11,783,796*l.* to the United States, and 10,109,563*l.* to India.

In 1815, the first year after the opening of the Indian trade to



British merchants, the total value of the imports and exports of this country, from and to India, amounted to 10,701,000*l.*;—in 1858, the amount was 31,754,000*l.* In 1858, therefore, the value of the British trade with India was three times more than it was in 1815. Judging by the declared value of our exports to India (there being no continuous record of the value of the imports), it is only in recent years that the British trade with India has increased to its present large proportions. The Computed Real Value of the total imports from India in each year since 1854, when the real value of imports was first ascertained at the Custom House, was:—

	£		£
1854 .....	10,672,000	1857 .....	18,650,000
1855 .....	12,688,000	1858 .....	14,972,000
1856 .....	17,262,000		

These figures show a very considerable increase.

The average of the five years gives an annual total of nearly 15 Millions. The average of the first five years after 1815 is about 7,500,000*l.* only. Hence, on an average of five years, the value of our imports from India is now double what it was after the first opening of the trade in 1815. This increase is not so striking as that of the Exports of British produce to India, which, on a comparison of similar periods, viz., from 1855 to 1858, over 1815 to 1819, shows, on an average, four times the value. The totals for the respective periods being about 11,600,000*l.* against 2,800,000*l.*

## II.—*Imports from India.*

The progress of the *Importation* of Indian products has been much greater in recent years than is apparent from a comparison of the aggregate value of the imports at different periods. If we examine the supply to the English markets of what now constitute the principal articles of export from India, a very extraordinary and gratifying increase will be seen. And, as regards the future prospects of our trade with India, it is both curious and hopeful to notice that the increase in our imports from India has not been in what may be termed the old and peculiar staples of India, such as indigo, lac dye, shellac, pepper, &c., but in articles which, twenty years ago, and, in some instances, within a much shorter period, were not imported from India at all, or only in small quantities. The value of such, comparatively, new articles of import from India, comprising hemp and jute, hides, rice, linseed and rape seed, sugar, teak, and wool, amounted, in 1858, to about 6,365,000*l.* or 43 *per cent.* of the total value of the imports.

Of the articles that we import from India, raw *Cotton* is the first in value. Although, from the enormous consumption of cotton

in this country, the proportion that comes from India is not very large, still the increase of the supply from India is by no means unimportant.

From 1833, when the East India Company ceased to be a commercial body, to 1839, the average annual imports of Indian cotton amounted to about 46 million lbs.; from 1840 to 1849, to about 75 million lbs.: and from 1850 to 1858, to about 133 million lbs. The percentage increase of the annual average was 63 per cent. in the ten years from 1840 to 1849, over the seven years from 1833 to 1839; 77 per cent. in the nine years from 1850 to 1858, over 1840 to 1849; and 188 per cent. of 1850 to 1858, over 1833 to 1839.

In 1850, there was a large increase in the imports of Indian *Cotton*, the quantity being 118,872,742 lbs., against 70,838,515 lbs. in 1849. The increased importation of 1850 has not only been maintained in the subsequent years (with the exception of 1852), but surpassed in varying degrees, being more than doubled in 1857.

The largest importation of cotton from India took place in 1857, and amounted to 250,338,144 lbs. in quantity, and 5,416,883*l.* in value; about one-fourth of the total imports of cotton in that year. In 1858 the supply of Indian cotton fell off considerably, but it, nevertheless, amounted to nearly 3,000,000*l.* in value.

*Indigo* is the article that we import from India, next in value to cotton, to the amount of from about 1,500,000*l.* to 2,000,000*l.* a year. The imports of this dye from India, have changed but little during the last twenty-five years. The quantities imported were about the same in 1833 and 1858 (56,388 cwts. and 55,867 cwts.), and, although between these years the annual importations varied considerably, according, probably, to the extent of the crop, still our imports of indigo have not been increased. Much more indigo is imported into this country than is required for home consumption. In 1858, 66,910 cwts. were imported from all countries, and 49,968 cwts. were exported from England to foreign countries.

After indigo we may notice *Sugar*. Of this article a large supply is now obtained from India. In 1833, only 153,994 cwts. of Indian sugar were imported, and in 1834 the smaller quantity of 101,997 cwts. These quantities were increased between 1833 and 1840, to about 500,000 cwts. In 1841, however, the imports of sugar from India rose to 1,271,582 cwts., and from 1841 to the present time, we have annually received from 1,000,000 to 1,500,000 cwts. of sugar from India. Between 1833 and 1839, the average import of Indian sugar was about 275,000 cwts., between 1840 and 1849 about 1,209,000 cwts., and between 1850 and 1858 about 1,121,000 cwts. The value of our imports of sugar from India was as much as 1,862,822*l.* in 1856, and 1,927,392*l.* in 1857. In 1858, a year of reduced imports, the value was 1,059,171*l.*



The value of the *Rice* imported from India is now little below that of sugar. In each of the last four years the value of imports of Indian rice has exceeded 1,500,000*l.* In 1853, only 179,370 cwts. of rice came from India to England, whereas in 1858, no less than 3,571,609 cwts. were received, of the value of 1,579,813*l.* The average annual imports from 1833 to 1839 were about 258,000 cwts.; from 1840 to 1849, 613,000 cwts., and from 1850 to 1858, 1,898,000 cwts. These quantities show a percentage increase of 137 per cent. in 1840-49, over 1833-39; 209 per cent. in 1850-58 over 1840-49; and 635 per cent. in 1850-58 over 1833-39. Indian rice appears to have been formerly of an inferior quality, and was favoured by a protecting duty to enable it to compete in this country with rice from America. Protection was considered indispensable to enable Indian rice to come into the English market. Mr. Porter in his "Progress of the Nation," says "The rice of Bengal has hitherto been considered very inferior to that of America, and was unable to bear successful competition with it, even under a 'protecting' duty of a penny halfpenny per pound, so that when it was proposed by the tariff of 1842, to reduce this 'protection' by 8*s.* 6*d.* per cwt., or very nearly a penny per pound, it was confidently predicted that the trade would be annihilated."

The extraordinary development of our Rice trade with India is not a bad illustration of the benefits derived from competition and free trade. The large quantities of rice now received from India are much more than sufficient to meet the demands of the English home markets. The markets of the Continent are now largely supplied with rice from England. The total imports of rice into the United Kingdom in 1858 were 3,692,023 cwts., and in the same year 1,199,662 cwts. were exported to foreign countries. The consumption of rice in this country has greatly increased. In 1858, 1,744,913 cwts. were retained for home consumption, against 322,900 cwts. in 1844.

In recent years, *Oil Seeds* have become a very important article of import into this country, and they are an article which India can furnish in very large quantities. The trade in this article is a good instance of the power of India to meet some of the demands of British commerce. In 1833 and 1834, not more than between 2,000 and 3,000 bushels of *Linseed*, the principal of the oil-seeds, came to England from India. The imports rose in 1835 to 127,000 bushels, but between 1835 and 1850, the increase was not more than to about 200,000 bushels. In 1851, nearly four times this quantity, or 750,000 bushels of Indian linseed, was imported. This increased quantity was almost doubled in the next year, 1852; and in the three years 1852-3 and 4, there was an average importation of 1,415,000 bushels. In 1855, the importation amounted to 2,902,000



bushels, which was double the average of the preceding three years, and four times as much as the importation in 1851. There was a decline of the imports both in 1856 and 1857, but in 1858, the large quantity of 3,333,000 bushels was imported, representing a value of 1,148,500*l*. Before 1855, we obtained *Linseed* principally from Russia; and the war with that country greatly contributed to the large increase in the supply of linseed from India. It is satisfactory to observe that, since the renewal of trade with Russia, and she has again sent us large quantities of linseed, the imports of that article from India continue to show an increase, so much so as to constitute India the largest contributor to our markets of this valuable seed. So recently as 1850, India furnished less than 5 per cent. of our total imports of linseed, whereas in 1858, the proportion of Indian seed amounted to 40 per cent. Linseed and flax seed are enumerated together in our trade returns, and in what has here been said of linseed, both kinds are referred to.

*Rape* is another oil-seed which is now obtained in considerable quantities from India. From being but a trifling article of import from that part of the world up to 1850, it has subsequently assumed a place of some importance in our trade with India. As in the case of linseed, the imports of rapeseed were much increased in the year 1850, and again in 1855-6; 546,000 bushels were imported from India in 1850 against 104,000 bushels in 1849; 1,119,000 bushels came in 1855, and 2,014,000 bushels in 1856. The value in 1856 was 736,778*l*. The imports in 1857 were much below those of 1856, but they rose again a little in 1858, and amounted to 1,262,000 bushels, of the value of 420,466*l*. Notwithstanding the decline as compared with 1856, the imports of rapeseed from India in 1858 contrast very favourably with the figures for 1850.

England now receives large quantities of *Hides* from India, the imports having risen from 29,337 cwts. in 1833 to 219,239 cwts. in 1857. The importation declined a little in 1858, but it amounted to 193,447 cwts. The value of the Indian hides imported was 1,067,162*l*. in 1857, and 654,201*l*. in 1858. From 1833 to 1839 the average annual importation of hides from India, did not exceed 40,731 cwts.; from 1840 to 1849 it was 85,132 cwts.; and from 1850 to 1858 it was 143,619 cwts. Thus, since 1850, we have, on the average, annually imported from India 102,888 cwts. of hides more than we did between 1833 and 1839, which is an increase of 252 per cent.

*Hemp*—or rather its substitute, *Jute*—is also an article with which we are now largely supplied by India. Jute was not separately distinguished in the official trade accounts before 1853. It is necessary, therefore, to take together hemp, jute, and other similar substances when comparing the imports for a series of years. Of

these articles we did not import from India more than 34,008 cwts. in 1833; whereas in 1858 the large quantity of 808,956 cwts. was imported, of the value of 685,948*l*. Between 1833 and 1839 the average annual import of Indian hemp and jute was only 79,994 cwts.; between 1840 and 1849 it had not increased to more than 196,471 cwts.; but from 1840 to 1858 the average annual importation was as much as 565,286 cwts. This was an increase over the annual average importation from 1833 to 1839 of 485,292 cwts., or 607 per cent. Of jute alone, the quantities imported were 274,997 cwts. in 1853, and 732,764 cwts. in 1858.

*Teak Timber* has long been known as a valuable product of India, but it has not been imported into this country to any extent until recently. In 1840 only 1,465 loads were imported. From 1840 to 1846 there was a fluctuating increase in the importations from 1,465 to 8,281 loads, but they fell to 5,836 loads in 1848. In 1849 there was a large increase to 17,449 loads; and, except a large decrease in two of the following years, there was no great variation in the quantity of teak annually imported from India between 1849 and 1856. In 1856, 16,529 loads of Indian teak of the value of 219,560*l*. were imported, but in 1857 the quantities were increased to 26,741 loads, and 327,577*l*. in value; and in 1858 there was a further increase to 37,885 loads, and 376,943*l*. in value. Since 1856, therefore, a very much larger quantity of this valuable timber has been brought to England, and the future demand will probably give it a prominent place in the list of our imports from India.

*Sheeps' Wool* is the only remaining principal article of import from India that remains to be noticed. Like most of the other articles previously referred to, it is only for a few years past that we have been supplied with any large quantities of wool by India. To show the commencement and growth of this branch of our Indian trade, the imports of 1833 may be taken as a starting point. In that year the registered total import of wool into England from India was 3,721 lbs. In 1834 the total was 67,763 lbs.; in 1835, 295,848 lbs.; and in 1836, 1,086,393 lbs. From this beginning the imports increased to 4,549,520 lbs. in 1851. This quantity had been only once exceeded in the previous fifteen years. In this period there was progress, though at a somewhat slow rate. In 1852 the large increase in our imports of Indian Wool commenced. In that year India sent us 7,879,801 lbs. of wool; in the next year, 1853, as much as 12,398,658 lbs. arrived; and in each of the years 1854, 1855, and 1856, the imports amounted to very nearly 15,000,000 lbs. In 1857 the imports reached 19,341,021 lbs., of the value of 673,493*l*. In 1858, there was rather a smaller importation, the quantities in that year being 17,298,597 lbs., and the value 490,521*l*. Between 1852 and 1857, the increase in the imports was not less than 144



per cent. In 1844 Indian wool amounted to only 3 per cent. of our total imports of wool; but in 1857, 15 per cent. of the wool we imported came from India.

It has been already observed in this Paper, that the trade in many of the articles which are now imported in large quantities from India scarcely existed before the year 1840, and a year or two afterwards. It was not until that period that our Imports from India of

Sugar,		Hides,
Rice,		Hemp,
Linseed,		Wool,

began to assume anything like importance. *Rapeseed* and *Teak Timber* did not enter into our trade with India to any extent until 1850. And as regards all the principal articles of import enumerated in this paper, the really large trade which now exists did not commence till ten years later, or so recently as the years 1850 to 1853.

### III.—Exports to India.

Having thus noticed the growth and extent of the supply of the most important raw materials for manufactures, and articles of food, which India affords to the English markets, we may proceed to examine the demand in India for the manufactured productions of England. The progress of our Exports to India has been even more favourable than that of our imports from that country. The following observations on our exports to India will have reference only to the produce and manufactures of the United Kingdom.

Beginning with the year 1815, the year after the opening of the trade, it appears that the declared value of British exports to India was then 2,565,761*l*. In 1818 there was an increase to 3,572,164*l*., and between that amount, and a total of about 4,500,000*l*., the value of our exports to India varied annually from 1818 to 1839. During that period of twenty-one years there was but little increase in the consumption of British Goods in India. It is to be remembered, however, that after the year 1818 there was a decline in the general export trade of the United Kingdom, and that the value of the total exports in that year was not again equalled before the year 1835.

In 1840 we exported to India to the amount of 6,023,192*l*., and during the next ten years, to 1850, there was a variation from a million below that amount to a million above it. In 1850 our export trade to India reached the value of 7,242,194*l*., and it did not vary much from that amount in the four years from 1850 to 1853.

There was an advance of nearly two millions in the value of our produce sent to India in 1854, in which year the amount was 9,127,556*l*. A further increase took place in each of the next three



years, 1855, 1856, and 1857; the total British exports to India amounting to 11,666,714*l.*, in 1857, which was an increase of two millions and a half over 1854. In 1858 there was an extraordinary increase of five millions over 1857, the value in 1858 being as much as 16,782,515*l.*

The amount of our export trade to India in 1858 is quite surprising; it is but little short of double the value of the trade only five years previously, in 1854, when there was a large increase over the previous year. Considering the state of India in 1857 and 1858, the large increase of its trade with England in those years is a very unexpected and unusual result. The foreign commerce of a country, especially the import branch, is generally greatly diminished when a state of internal disorder prevails. Notwithstanding the magnitude of the supply of British produce to India in 1858, there is a fair prospect of the amount in that year not forming the limit of what India is capable of taking from us. The monthly trade accounts show a most satisfactory state of trade to India in the present year. The returns of our exports in the first six months of 1859, exhibit a large increase in the value of our produce taken by India over the corresponding period in 1858 and 1857. The value of British produce exported to India in the first six months of 1859 amounts to 10,109,563*l.*; an amount, for half a year only, exceeding the exports to India for the whole of so recent a year as 1855.\*

A concise view of the progress of our *Exports* to India will be obtained from a comparison of their average annual value between the years when a maintained increase of trade commenced.

In the long period from 1818 to 1839, when no particular alteration took place, we exported to India to the value of 3,620,000*l.*, on an annual average—from 1840 to 1849, the average value for each year was 5,700,000*l.*—from 1850 to 1853 it was 7,000,000*l.*—and from 1854 to 1858, it was 11,600,000*l.*

Thus, from 1850 to 1853, we find the annual average value nearly *twice* as large as it was before 1840; and from 1854 to 1858 more than *three times* greater than from 1818 to 1840. The percentage of the increase is—

58 per cent. in 1840 to 1849 over 1818 to 1839;

23 per cent. in 1850 to 1853 over 1840 to 1849; and

66 per cent. in 1854 to 1858 over 1850 to 1853.

The principal articles that we send to India are *Cotton Manufactures* and *Yarn*; *Iron and Steel*, wrought and unwrought; *Copper*, wrought and unwrought; and *Woollen Manufactures*.

\* The total value of our exports to India in 1859 has since been published, and it amounts to the large sum of 19,832,699*l.*

Cotton Manufactures are the chief article of our exports to India, in fact, India is the best customer we have for the most important of our industrial productions. In 1834 the value of our *Cotton Manufactures* exported to India did not exceed 943,504*l.* and it continued under two millions until 1839. In that year, 2,285,918*l.* was the value of our cotton goods that went to India. An increase to 3,182,530*l.* was made in 1843, but this amount was not much exceeded before 1850, when the value of 4,127,709*l.* was reached. In 1851, 1852, and 1853, there was a decrease to amounts rather below 4,000,000*l.*; but in 1854 as much as 5,319,109*l.* of our cotton manufactures were exported to India. From this amount there was a fall in 1855, and, although an improvement took place in 1856, and also in 1857, the value in these two years did not equal that of 1854. In 1858, however, a great advance was made, and in that year India took our cotton manufactures to the value of 8,414,684*l.* Large as this amount is, it will probably be much exceeded in the present year, as, for the first half of it only, there has been an export to the amount of 6,094,433*l.*

Although the great advance that has taken place in the export of our Cotton Manufactures to India since 1834, is forcibly shown by a comparison of the *value*, it will be well to state also the *quantities* exported for some of the years. Between 1834 and 1858 there must have been a great reduction in the cost price of Cotton Manufactures, and it is, therefore, not surprising to find that there is a much larger increase in the quantities than in the value. In 1858, as compared with 1834, whilst the *value* was about *nine* times as great, the *quantity* was nearly *twenty* times larger. In 1834, the quantity was only 39 million yards, but, in 1858, it numbered as many as 728 million yards.

Besides the manufactured stuffs, *Cotton Yarn* is exported to India in considerable quantities. The increase in the exports of yarn has not been equal to that of the stuffs. The value of the yarn exported to India was 315,583*l.* in 1834, and double that amount in 1838. From 1838 to 1849 it varied between about 600,000*l.* and 1,000,000*l.* From 1850 to 1857, rather more than a million was maintained in each year. In 1858 the value rose to 1,835,142*l.* The quantity increased from 4 million lbs. in 1834, to 34 million lbs. in 1858. The total value of our exports of cotton stuffs, and yarn, to India in 1858, amounted to 10,249,826*l.*, and formed 62 *per cent.* of the aggregate exports to India. The percentage of our exports of cottons to India in 1858, as compared with our *total* export of cottons in that year, was 25 *per cent.* for *stuffs*, and nearly 20 *per cent.* for *yarn*.

The export of *Iron and Steel* to India has increased considerably in recent years. The value of these articles, wrought and un-



wrought, (excluding machinery, hardwares, and cutlery,) amounted to 104,340*l.* in 1834. From 1834 to 1853, the value varied from 100,000*l.* to 300,000*l.* In 1854 it reached 453,413*l.*, and in 1855 it rose to 1,242,853*l.* From this sum it increased to 1,902,157*l.* in 1858. The quantity was 11,693 tons in 1834, and 196,474 tons in 1858. The great increase in the export of *Iron* to India in 1855, and the subsequent years, is mainly caused, no doubt, by the demand for Railroad iron. This demand will, doubtless, increase in future, and will cause large quantities of our iron to be shipped to India. *Machinery*, principally of other kinds than steam-engines, has been exported to India since 1855, to the value of little less than half a million annually.

The trade to India in *Hardwares* and *Cutlery* is improving. In 1853 they were exported to the value of 120,004*l.*, and in 1858 to the value of 251,831*l.* The exports to India of *Copper*, and of *Woollen Manufactures*, have increased in recent years. In 1858, the value of British copper sent to India was 680,170*l.*, and the value of woollen manufactures was 541,745*l.*

The increase in our trade with India has afforded much additional employment for our *Shipping*. The tonnage of British vessels entered from India, in 1834, was 75,461 tons, cleared to India, 90,833 tons; in 1840, the amounts were 137,883 and 179,204 tons; in 1850, 247,307 and 260,037 tons; and in 1858, 507,136 and 461,179 tons. Of late years foreign ships have, of course, participated in the trade to some extent, and in 1858, 68,910 tons of foreign shipping entered, and 118,677 cleared, from and to India, at ports in the United Kingdom, in addition to the tonnage of British vessels.

A comparison of the Statistics of the past and present state of the British Trade with India cannot fail to afford much satisfaction to all who take an interest in the future relations of England and her Indian Empire. It is not only apparent that India produces, abundantly, several articles of which we need a very large and increasing supply, but it can take as well as give. Large as are now our import and export trades with India, and surprising as is the increase in them, when compared with periods not long past, there are many reasons to believe, and to hope, that the future will much surpass the present. The railroad, the steamboat, and the electric telegraph have yet to operate on India. These powerful agents, that British capital and enterprise will give to India, must so advance the material interests of the country, that the future commerce between England and India will exceed what can now be supposed to be probable.

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RESULTS of the TRADE of the UNITED KINGDOM during the YEAR 1859; with STATEMENTS and OBSERVATIONS relative to the Course of PRICES since the Year 1844. By WILLIAM NEWMARCH, one of the Honorary Secretaries of the Statistical Society, and Editor of its Journal.

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FOLLOWING the example established at the close of 1858, I have endeavoured to present in this Paper a similar review, drawn from similar sources, of the Trade of 1859; and in the Appendices to the Paper will be found tables which it is believed will assist materially in enabling us to ascertain with precision the real range of Prices in this country *prior* and subsequent to the commencement of 1851, that is to say,—the date at which the influx of the New Gold may be considered to have fairly set in.

I.—*Wheat and Grain Crops, 1859, and Corn Trade of 1859.*

Messrs. Horne and Watney, of London, report as follows:—

“The year 1859 commenced upon decidedly low prices for all descriptions of grain; and as agricultural prospects continued tolerably favourable, the trade would probably have remained in a quiet state until near harvest, had it been left to its natural course, there being no great export demand, while the home supplies and foreign imports were more than equal to the consumption of the United Kingdom. So great also was the desire for peace in this country, that it created (notwithstanding the threatening aspect with regard to the Italian question) an almost universal disbelief in war. Millers and dealers not having prepared for such a contingency while prices were unusually low, were upon the declaration of War by Austria against France and Sardinia obliged to run into the market at the same moment with speculators, and the effect was to send *up prices in a fortnight, until on the 2nd May English wheat had risen 18s. per quarter.* Then appeared the preliminaries of Peace, and with them came a sudden fall of 10s. per quarter. Any further decline was arrested by the daily increasing reports of blight to the young wheat-plant from the extremely cold weather the last week in March and first in April—the probability of short crops of wheat on the continent, caused by continued drought—in May the prohibition to export grain from Roman States—in June the excessive heat, the storms here, in France, and Denmark, and the resumption after

30th September of the old sliding-scale of duties in France, abolished since 1853—then the bad accounts of our own Potato crops, as also on the continent, and the certainty of small crops of Maize in America, and in various parts of Europe, especially of the Danube. At last came the great lever to a reaction, the total cessation of the heavy supplies from France, which had hitherto been brought into the various ports of the United Kingdom, although mostly to a loss, and the above combined causes produced a gradual improvement in prices until the approach of Christmas, when, as usual, we had a slight decline.

*Wheat.*—"From the best information we have been able to collect, we set the last English crop (of 1859) at *decidedly under an average in bulk*, while the weight per bushel is fully 3 lbs. lighter than an average, so that, after allowing for the excess of Old Wheat on hand at harvest time, we consider we started with about our usual quantity in farmers' hands. The samples vary much, as indicated by the unusual range in quotations; a few off strong lands well harvested, are fine, and weigh about 63 lbs., then come the good runs 60 lbs., then the hollow-chested, thin, prematurely-ripened, about 58 lbs., and thirdly, very many soft, sprouted, badly-harvested, down to 55 lbs.; and here we think it worthy of remark that the want of the usual supply of *Harvest Labourers* prevented the sufficiently quick ingathering of the crops already ripe from the extreme heat, and when the violent storms came after so long a drought, many farmers hurried their crops from the fields. Our best crops are north of Newcastle. In Scotland they are particularly good, Ireland good, Denmark and Sweden splendid in quality and quantity; along the Baltic, fine qualities and satisfactory quantities; Holland and Belgium very small; France less than an average in quantity and quality, but the deficiency is made up by the Old Wheat left over; Spain short; Portugal and Italy very deficient; Africa small; Syria almost a failure; Russia upon the whole small, but quality fine; America an average in quantity and fine quality. The wonderful productiveness of the Crops of 1856-57-58, *but especially of the last two*, left us with larger stocks in farmers' hands at harvest-time than has been known for many years. This we think proved by the facts that the supplies of English from September to August, both inclusive, in the respective seasons of 1857 to 1859 (years of great crops)

were 5,094,641 qrs.	} as against 5,240,483 in '55-56,
and 5,215,019 qrs.	

and that notwithstanding the growing conviction of the inferiority of the new crop, farmers' deliveries of fine old Wheat since harvest have been so abundant at these very moderate rates as to keep it always relatively cheaper than foreign, which has consequently been much neglected. The low prices current last winter and spring caused no considerable quantity of English Wheat to be used for cattle food and for malting purposes, and the universally admitted enormous consumption of English Wheat during the last three months has materially reduced any superabundance. In reckoning for our wants up to another harvest, we must likewise bear in mind that we began upon the new crop one month earlier than usual. America having a small crop of Maize, and no stock of old Wheat on hand, will spare us but little Wheat or Flour, unless our prices advance at least 5s. on Wheat. France will be far less liberal than last year, and has better customers for her grain than ourselves; and that Ireland, having a very deficient Oat crop and a thriving population, has hitherto drawn, and will doubtless continue to draw off, four-fifths of the Mediterranean supplies of Wheat and Maize. Of the 4,018,469 qrs. foreign imported into the United Kingdom, only 688,566 qrs. came to London. 1858 opened with an imperial weekly average price for English of 47s. 7d., and closed with 40s.; the annual aggregate average was 44s. 5d., the highest was 49s. 11d., the lowest 40s. per quarter. Stock left on hand large. 1859 opened with 39s. 10d., and closed with 44s. 2d.; the annual aggregate average was 43s. 11d., the highest was 54s. 4d., the lowest 39s. 10d. per quarter. Stocks of foreign left on hand are large in London, and at most of the outposts in the United Kingdom.



*Barley*.—"Last year's crop, though more than an average in the breadth of land sown, was barely an average in quantity to the acre, was very deficient in weight, and decidedly the worst in quality we have had for many years, the excessive heat of the summer having caused the samples to be thin, light in weight, and very 'steely' where the grain was cut and carried before the heavy rains; and those which were exposed to the storms, of which, unfortunately, there was a large breadth, came to market much sprouted and discoloured, and perfectly useless for malting purposes. Weights vary from 45 lbs. to 53 lbs.; the latter, however, is quite the exception. *Scotland*, under a dry summer, has been favoured with a splendid crop, nearly all of malting quality, and a large proportion of it has come south, malsters having paid up to 46s. for the finest 56 lbs. to 57 lbs. *Sweden and Denmark* had likewise splendid crops in quality; the latter, however, had only a small produce, while the former was under an average. Malsters have again been compelled to look to the Rhine, the Saale, and to the south of France, for such samples as were good enough for their use, and of course they have not been able to be as particular as in ordinary seasons. From *Odessa* we hear complaints of quality and quantity, and shipments are not likely to be so extensive at the opening of the next season as in the last. From the Danube accounts are most favourable as to quality and quantity, and as the cargoes now arriving come very fine, we may expect a considerable quantity from thence. In consequence of the War a sudden demand sprang up for the exportation to France and Sardinia, and good qualities of *Odessa* and Danube rose from 22s. to 28s. per 400 lbs. 1858 opened with an imperial weekly average price for English of 35s. 10d., and closed with 32s. 10d. The annual aggregate average was 34s. 9d., the highest was 37s. 6d., the lowest 29s. 9d. 1859 opened with 32s. 4d., and closed with 34s. 8d. The annual aggregate average was 33s. 7d., the highest was 36s. 5d., the lowest 32s. 2d. Stock of foreign left on hand small here and elsewhere.

*Oats*.—"The breadth of land sown in Great Britain in 1859 was an average, but the produce per acre in *England* was small, and in *Scotland* only two-thirds of a crop, the quality and weight of which come inferior to that of the previous year. In *Ireland* the cultivation of this grain decreases yearly, and the produce to the acre last year was short. France, Belgium, Holland, Hanover, and Denmark, had likewise very small crops: and in the latter country the want of green food, from the failure of the grass crops, was so great that in parts of Jutland the oats were cut green for cows. Sweden and the German Baltic ports will send us their average supplies. In Northern Russia the crops are not so well spoken of as last year, either as to quantity or quality; but Archangel has an unusually good stock of the old crop in granary, and, with tempting opening prices on this side, we shall, no doubt, get our requirements supplied. The deficiency in the Russian supply has been about made up by excesses from Sweden, Denmark, Scotland, Ireland, &c. The war caused less fluctuation in the value of this article than of any other. We commenced the season of 1859 with a heavy stock in hand, and we have left it with a large one, though 80,000 qrs. less than last year. Of the 1,708,768 qrs. foreign imported into the United Kingdom, 1,509,821 qrs. came to London, the great emporium of oats. 1858 opened with an imperial weekly average price for English of 22s. 3d., and closed with 21s. 9d. The annual aggregate average was 24s. 7d., the highest was 28s. 5d., the lowest 21s. 9d. 1859 opened with 21s. 10d., and closed with 21s. 5d. The annual aggregate average was 23s. 3d., the highest was 26s. 3d., the lowest 20s. 10d.

*Flour*.—"The circumstance most worthy of remark is the almost total extinction of the American trade with the London market, and of the particularly small quantity sent thence to any market in the United Kingdom. Stocks there were so completely used up at the approach of the last harvest that supplies, as they arrived at sea-board, were immediately taken for local consumption, and prices have ruled too high to face our market. From the circumstances mentioned under our "wheat" heading we must look to little or no assistance from the United States or Canada unless our prices rise fully 3s. per barrel above the present rates. The quality of the new American is approved of. The next peculiar feature is the



immense supply of France, especially in the second quarter, and the sudden falling off in the arrivals thence in the third quarter, not only to this, but to all the out-ports. Tempting prices, but none other, may also renew our trade with this country, although she may afterwards have to replace. The year commenced with a small stock of foreign, but has gone out with a heavier one here and elsewhere. The value of this article has fluctuated with the rise or fall of wheat, but in a less proportion. Of the 3,297,576 cwts. of foreign imported into the United Kingdom, about 382,598 cwts. came to London."

Messrs. Horne and Watney annex a table of the *Imports of Grain into the United Kingdom in each of the five years 1855-9*, from which we obtain the following summary—omitting the 000's at unit end:—

Years.	Wheat.	Barley.	Oats.	Rye.	Peas.	Beans.	Maize.	Wheat Meal.
	Impl. qrs.	Impl. qrs.	Impl. qrs.	I. qrs.	I. qrs.	I. qrs.	Impl. qrs.	Cwts.
1859....	4,018,	1,742,	1,708,	81,	138,	346,	1,321,	3,297,
58....	4,275,	1,672,	1,887,	105,	159,	415,	1,772,	3,890,
57....	3,465,	1,720,	1,732,	77,	52,	317,	1,158,	2,194,
56....	4,101,	735,	1,156,	28,	87,	355,	1,788,	3,968,
55 ...	2,686,	351,	1,044,	3,	116,	347,	1,225,	1,922,

II.—Colonial and Tropical Produce:—Tea, Coffee, Sugar, Fruits, Spices, Tobacco.

The following is from the Circular of Joseph Travers and Sons of London:—

"In nearly every case the results of 1859 have been satisfactory, and it is gratifying at the same time to know that equal prosperity seems to have attended the trade of the country. From all quarters the impression is confirmed that England has never before experienced a year of such steady activity and large profits, and there is every prospect that the effect of these will continue to manifest themselves on the produce markets by promoting the consumption of all articles of food and luxury, and also that 1860 will be marked by further independent progress.

*Tea.*—"The fluctuations in this market have been considerable, the price for good ordinary Congou having ranged from 1s. 0½d. per lb. in January last to 1s. 5¼d., a value it attained in September. In *January* there was considerable excitement, speculators buying to some extent, and dealers operating freely. The price of common Congou, which had been 11¼d. in December, advanced to 1s. 0½d., and strong blackish leaf kinds also improved to a similar extent. This improvement continued throughout February, when common Congou was done at 1s. 1½d., and the market generally was very firm. *March* witnessed a dull market, and a want of confidence in prices being maintained restricted business. Good and fine Monings and Oopacks being pressed, a reduction of 1d. to 2d. per lb. resulted. The general election and the threatening aspect of affairs on the Continent, caused interruption to business throughout *April and May*, and in the earlier part of the latter month common Congou had receded to 1s. 1d., but immediately on the arrival of the China mail, confirming the fact of *short shipments*, a sudden improvement occurred, and a general advance of 1d. was immediately established for most

kinds of Congou, speculators assisting largely in producing it. This advance, however, was temporary, and owing to the almost universal desire on the part of holders to realize, and chiefly by auction "without reserve," fully half of the previous rise was immediately lost. In *July*, in anticipation that the Chancellor would impose an increased rate of duty, prepayments to a considerable extent were made; the minister adopting another course, the market, which while the question was in abeyance had exhibited depression, was relieved. This continued until the receipt of the news of the *Peiho disaster on the 12th of September*, which took the trade by surprise, and as great caution in buying had previously existed, the trade were generally light in stock. A simultaneous demand from dealers and speculators quickly advanced prices, until common Congou was worked up to 1s. 5¼d., and the grades immediately above common to 1s. 6d. and 1s. 7d. The next advices from China, showing that, notwithstanding our rupture with the Chinese government politically, business at all the ports proceeded as before, the market, after a feverish excitement, *gradually declined*, and a long period of dulness and inactivity supervened, until common Congou retrograded to 1s. 5¾d., and black leaf kinds to 1s. 4½d., *lower prices*, in fact, for each kind than had existed *previously* to the immediate receipt of the unwelcome and disastrous intelligence. This was not warranted by the condition of our stocks and the prospect of supply. Within the last few weeks the market has been gaining in consistency, and common Congou is quoted now 1s. 3¼d., and black leaf 1s. 6d., prices assimilating to those ruling in August last. The present stock of tea in the United Kingdom is estimated at about 61,000,000 lb., as against 72,558,000 lb. at the end of 1858. The export from China, as per mail received on the 30th inst., with dates thence to the 10th November, was 34,900,000 lb. as against 13,400,000 lb. in 1856; 25,000,000 lb. in 1857; 32,500,000 lb. in 1858. The deliveries for Home Consumption and Exportation in 1858 were 31,000,000 lb. of which 73,000,000 lb. were taken for consumption, and 8,000,000 lb. exported or taken for stores. The delivery for the present year will be little under 87,000,000 lb., and chief part of this excess, as compared with last year, will be found to have been taken for Home Consumption. This is most satisfactory, as showing the steady increase in the consuming power of the country. With these figures before us we should be disposed to think tea could not greatly, if at all, recede in value. It may be said we shall have a very heavy import this year; so far as the season has proceeded it would appear so, but we believe, if 80,000,000 lb. are calculated upon, the estimate will be nearly correct. At the present increasing rate of consumption 90,000,000 lb. will not be an unfair estimate of our wants for 1860; but should the duty be reduced to 1s. per lb., consumption must receive a great impetus. It must also be borne in mind that we commence the year with a deficit in stock of 11,500,000 lb., so that we have every desire to receive from China all the tea she is likely to be able to send us.

*Coffee.*—"In taking a retrospective view of this article, the constant and heavy fluctuations to which its value has been subject throughout the year, are most noteworthy, and indicate the extent to which the market is dependent upon export demands. Continental requirements being represented often most capriciously, by the uncertain action of exporters, whose operations unduly raise and depress prices, affecting, at the same time, materially the relative value of different classes. The difference in value between native and plantation Ceylon, which in January was 15s. to 18s. per cwt., is now only 8s. to 10s., and this may mainly be attributed to a large *export demand* falling on native, as a substitute for Bahia, Rio, and other low-priced descriptions. The market opened in *January* with much buoyancy, and a large business resulted, a rapid rise taking place up to the time of the Dutch Trading Company's sale of Java of the 30th *March*, the prices at which so far exceeded expectation that operations in those descriptions were entirely prevented—a circumstance that obliged both the export trade and ourselves to give a further advance of from 2s. to 3s. This was maintained till about the end of *April*, when it became apparent that prices in the continental markets had been *sensibly overstrained*. A sudden reaction in our own market resulted of fully 5s. per cwt. within a month. For the next two months the market was extremely sensitive,



and several fluctuations took place; but subsequently a steady and considerable business was established at advancing prices both by the home trade and export, principally for plantation Ceylon, natives being comparatively neglected. This neglect, however, proved but temporary. Prices were fairly maintained for both descriptions up to the Dutch Trading Company's autumnal sale, which, contrary to all expectation, *failed to realize* within 4*s.* to 5*s.* of the valuation. This *sudden fall*, of course, materially affected our markets, destroying, in a great measure, the favourable opinion hitherto entertained, as importers were at that moment large holders, and evinced, week after week, a determined disposition to realize, prices gradually giving way till the middle of *November*, when they showed a fall of 6*s.* to 7*s.* in plantation, but only 3*s.* on native Ceylon. The feeling respecting political affairs, which always more materially affects export demand, then underwent a considerable change; and this, and the low prices ruling, caused a sudden but not unlooked-for demand, which, up to the close of the year, has steadily continued, and prices now show a *recovery from the lowest point* of 3*s.* to 4*s.* in both descriptions. Our impression is, that the retail trade, both on the Continent and here, are extremely light in stock, and we look with much confidence to the new year for a speedy resumption of business in this article at improving rates.

*Raw Sugar.*—"Although, on reviewing the course the market has taken during the past year, no striking features of interest present themselves, the general results are most satisfactory. *The Consumption of the country has exceeded somewhat that of last year, which was unprecedentedly large*—a fact, considering the failure of our green fruit crops, the largeness of which, during 1858, tended largely to swell the consumption for that year, highly indicative of the general prosperity of the masses. The *absence of speculation* has given to the market a healthy tone, which has caused fluctuations to be gradual, and left the interest of all concerned more secure against sudden and severe losses. Prices slightly advanced till *April*, when immediate prospects of War on the Continent produced sudden depression, and the previous improvement was lost. Through *May* the market *declined*, but during *June* and *July* some large operations in expectation of an increase in duties somewhat advanced prices. Under this impression, duty was paid on large quantities even to the extent of from six to eight weeks' consumption. During *August* the fruit crops proving a failure, and deliveries continuing on a small scale, a heavy and declining market was the result. In *September* heavy arrivals of foreign sugar were suddenly forced upon the market, and reports of large shipments from America, which, however, ultimately did not appear to any extent, induced a *rapid decline of 2*s.* 6*d.* to 3*s.* per cwt.* In the beginning of *October* the market reached its *lowest point*, 36*s.* being given for brown raw, the quotation for brown lumps being then 47*s.* 6*d.* From this point we have witnessed a *rapid but steady improvement*. The lower prices, combined with the spread of general prosperity, have induced a consumption, which, in the latter part of the year, has more than made up for any previous deficiency; and we shall commence 1860 with prices generally on a par with those ruling in *January*, 1859, and with no immediate reason to doubt a continuance of the same scale of consumption. The prospects of the next few months are not satisfactory as regards supplies, and forbid any idea of material decline in prices.

"There have been few previous years, we believe, in the *Fruit Trade*, more satisfactory to retail grocers than 1859, for not only has the consumption gone far towards *doubling* itself since 1857 in Currants and Raisins, but *prices have been low* almost throughout the year in these two staple articles, and the sale usually concentrated in the few months preceding Christmas has divided itself throughout the entire 12 months.

"In *Currants*, prices for the first quarter of the year varied little. In the autumn, dealers purchased heavily in advance,—a course which proved much to their advantage, as the prices of new currants on arrival were so high as to make them dear compared with previously bought stock.

"In *Valencia Raisins* from January until September the unusually *low prices* caused a very large consumption at a season when but a small amount is generally



sold. New Valencias arrived in September, and the season of 1859, from that to the present time, has proved even more than usually disastrous to importers. By their conduct this season the raisin growers of the east coast of Spain have brought Turkey and Malaga fruit into active competition with their own, and the little monopoly of the raisin trade which they have enjoyed may be considered at an end, should they not in future years correct the system.

"Owing to the demand from grocers, *Turkey Raisins* have been principally imported in boxes. In future years, with increased facilities of carriage from the interior, the trade in these fruits from this rich portion of the Mediterranean is likely to become much more important.

"The *Fig Market* was almost cleared by June, after a very considerable and continuous sale during the spring. At present our lowest quotations for figs are under those of last year at this time, but they represent inferior stock."

And the following by Horatio N. Davis and Co., of London:—

*Tobacco*.—"At the commencement of 1859 the stock in Europe was 5,000 hhds. more than in 1858, but still *below an average* of the preceding nine years, and 26,000 hhds. less than in 1849. In the autumn, from the knowledge of large crops having been secured in America, prices gradually receded till the year closed; but the better grades were less depressed than other kinds. Early in the year a large purchase of Western strips was made in this port, partly for the trade and resale; but no justifying cause existing for the operation, it rather depressed than elevated prices. Late in the season there was a good general demand for most descriptions for home use, which resulted in sales to some extent; but more especially in Virginia leaf and strips and Western leaf, while Western strips and nondescript qualities of all denominations were comparatively neglected, and there was an absence of export orders. Many of the great consuming countries in continental Europe being well supplied, can assume a more independent position during the forthcoming season than their requirements enabled them to do in the last, and it remains to be seen what effect the last crop will have upon prices in America. There can be no doubt the high rates current there for some time have, each successive year, caused planters to retain in the interior as little as possible, consequently the requirements of the world will have to be supplied from the crops of 1859. Taking them, from the best authorities, there is a total of 338,000 hhds. to last until the crops to be grown this year can be made available. Computing the consumption of the world merely at the same rate as it was some few years since, it appears the *supply will be ample* until the period referred to. Under such circumstances a *more moderate scale of prices seems likely to prevail*; but there is no reason to anticipate extremely low rates until European stocks become augmented to the standard of 1849-50, which the restricted cultivation in Hungary, and consequent increased demand from Austria, may tend to counteract, unless over-production in America should interfere."

Messrs. Edmund Phillips and Son's report:—

*Provision Trade*.—"The past season opened at moderate prices, and the Italian War caused such an unexpected demand, through the requirements of France, Austria, and Sardinia, for which we were quite unprepared, that at one period our stocks on hand were nearly all taken away at an advance of 25 per cent., *Pork* selling at 110s. per barrel and 9l. per tierce, while *Beef*, although not in so much request, was similarly influenced, the stock being small. These high rates encouraged supplies from different countries, so that as the war came to an early conclusion, the season is winding up at about the *same rates* at which it commenced. We are now on the eve of a new season, and are happy to find from the samples that have come forward that the quality promises to be finer than last year, the opening prices being about the same; yet we must not lose sight of the fact that population increases in a greater ratio than food, thus making a demand for live Hogs and Cattle from the provinces and all the adjacent countries to an

almost unlimited extent. This tends greatly to advance the price of *Salt Meats* for shipping purposes ; steam vessels and railways bringing meats to market in a fresh state that formerly were obliged to be salted ; besides which, the continual influx of gold, and the consequent increase of money all over the world, has enhanced the rates of produce very considerably, and is likely to have a still greater effect, leaving out of consideration the possibility of any political derangements. There has been a gradual advance in the price of Provisions for the last 30 years : formerly Ireland alone supplied all the extra wants of this country ; and now, nearly every country in Europe, together with America, can scarcely meet our demands, although drawn upon to the full extent of their surplus food. *Irish Bacon*, that sold at 36s. per cwt., now brings 60s. and 70s. per cwt. ; *Irish Pork*, 60s. per barrel, now 90s. to 100s. ; *Beef*, that was then at about 80s. per tierce, has now advanced to 100s. and 120s. ; *Butter*, with a duty of 20s. on foreign, that realized about 84s., now sells at 110s. to 120s. per cwt., although the duty on foreign butter has been reduced to 5s. per cwt. ; *Dutch Cheese* also, which formerly sold at about 42s. per cwt., with a duty of 10s., is now selling at 63s., with the duty reduced to 2s. 6d. per cwt.”\*

III.—*Raw Materials :—Wool, Silk, Oils, Timber, Seeds, Leather, Tallow, Flax, Hemp.*

Messrs. Hughes and Ronald, of Liverpool, say :—

*Wool*.—“ It is our pleasing task to be able to report favourably of the Wool Trade generally throughout the past year. The great falling off in the exports of manufactures during the Panic created, no doubt, a vacuum that required filling up, but when we find the increase to have been such as even to *exceed* the hitherto largest shipments of 1857, we very naturally ask whether any new markets have been opened to us, or is this solely to be attributed to a greater development of existing channels, arising from the fact that a more Extended Commerce, as a matter of course, brings about a larger demand for our productions in return. We incline to the *latter view*, and since a brisk export trade always materially contributes to the full and steady employment of our home population, who in their turn become not only larger consumers of all the necessaries of life, but even of the so-called luxuries, we may thus account for the very large home demand for all kinds of woollen goods that has prevailed during the year.

“ With regard to Domestic Wools, political affairs on the Continent in the early part of the year induced all to act with extreme caution, and deterred foreigners to a certain extent from taking their usual supplies from our markets ; this continued up to clip-time, when consumers, being much lower in stock than was anticipated,

\* From various reports of the character and result of the Great Metropolitan Show of Christmas Cattle, &c., early in December, 1859, we gather the following statement of the prices prevailing (per 8 lbs.) on the great day of the sale, during the six years 1854-9.—ED. S. J.

Years.	Beef.		Mutton.		Veal.		Pork.	
	d.	d.	d.	d.	d.	d.	d.	d.
1859 .....	48	@ 64	52	@ 64	48	@ 60	42	@ 54
58 .....	54	„ 62	44	„ 60	42	„ 60	36	„ 48
57 .....	48	„ 56	56	„ 64	50	„ 62	42	„ 54
1856 .....	42	„ 62	52	„ 66	52	„ 64	50	„ 62
55 .....	48	„ 66	48	„ 62	48	„ 64	46	„ 58
54 .....	48	„ 64	48	„ 64	54	„ 68	42	„ 57



showed great anxiety to supply themselves at the opening rates from growers, and, competing very keenly, forced prices up in a few weeks to within a shade of the highest point attained before the panic, and at these rates a large portion of the clip was disposed of. Continental affairs again becoming very unsettled, the trade was once more induced to act with great caution, and though probably no material decrease in the consumption took place, still all needy holders, in order to effect sales, had to submit to a reduction of from  $2\frac{1}{2}$  to 5 per cent., which state of things continued up to the end of October, when, with an increased steadiness of consumption, prices recovered firmly.

"The imports of *Foreign and Colonial Wools* in the aggregate amount to more than in the preceding year, and are about equal to those of 1857.

*Australian.*—"The import for the year shows a small increase, and the condition has on the whole been fair. New Zealand shows the greatest improvement, and the enhanced prices obtained in consequence will be an incentive to the grower for further exertions.

*Cape of Good Hope.*—"The decrease in the import will be found considerable. There is a very great improvement in the getting up of some of the flocks, which have sold at very high prices, thus proving, as regards some districts at any rate, that it only requires care and attention to produce a much better class than the hitherto general imports from that quarter.

*German.*—"The import has been much larger than in former years. In the early part of the year, owing to the high prices of colonial wool and the very unsettled state of political affairs on the Continent, many holders there were anxious sellers, and some considerable parcels were bought for this country at very low rates.

*Spanish and Portugal.*—"The supply of the former has been very limited, and every succeeding year seems to indicate that it will cease altogether. Oporto shows a large increase.

*United States.*—"There have been no imports of the growth of this country during the past year.

*Buenos Ayres.*—"The imports show a falling off. The demand throughout the year has been fair.

*Peruvian and Alpaca.*—"The arrivals of sheeps' wool show a very large increase. The import of Alpaca, has also increased. The stock now left is only about 2,000 to 3,000 ballots, which are held for higher rates.

*East India.*—"The imports this year show a *slight decrease* as compared with the two former years, which does not arise entirely from a diminished supply, but from the circumstance that, instead of England receiving, as hitherto, nearly the whole export from Bombay, a portion is now sent direct to the United States, France, and Germany. The demand throughout the year has been very steady, and prices have ruled more uniformly than during the previous year; but we regret to find that less care is taken in the packing of these wools than formerly, some marks showing a considerable portion of country damaged wool, and appearing also to have been press-packed while damp.

"*Egyptian* has been much sought after during the year, at relatively high prices, and we are glad to perceive a very great improvement in the getting-up of these wools, in consequence of which the better classes have commanded very full rates.

From the Circular of Messrs. Durant and Co.:\*—

"In China Silk there is an increased *import* of 26,000 bales, an increased *delivery* of 1,250 bales; in Canton silk an increased *import* of 320 bales, a

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\* According to a circular of Mr. Charles Oldham, of Manchester, the aggregate *Exports* to China of plain and printed *Calicoes* in 1859, compared with those five years back, show an increase of 480 per cent., and of Cotton Yarn 377 per cent. Of the total export of plain and printed *Calicoes* from the United Kingdom last year *more than half* was to India and China. The estimated *Cotton Crop* of the



diminished *delivery* of 1,800 bales; in Chinese Thrown Silk an increased *import* of 3,200 bales, a diminished *delivery* of 3,400 bales; in Bengal silk, importation as last year, an increased delivery of 5,000 bales; in Italian silk, importation as last year, delivery as last year; in Brutia silk, importation as last year, delivery as last year; in Persian silk, an increased import of 550 ballots, a diminished delivery of 180 ballots—thus showing a *large increase in the deliveries and consumption of Bengal silk*, and a coincidental but not consequent diminution in China silk, and, what is more striking, a very *large increase in the importation from China*—this, however, as remarked last year, is more apparent than real from the trifling difference of a few days or hours in the arrivals. It will be recollected that last year there were 11,000 bales, which would, under ordinary circumstances, have been included under the year 1858, and this would have gone far towards equalising the two years 1858 and 1859. Now, there are nearly 6,000 bales off the coast, but these all fairly belong to the new year. Once more we commence a new year with *small stocks*—little more than three months' consumption, and this after importations beyond precedent except in the memorable year 1857. Our market, too, is firm; but there is no buoyancy of feeling. This is and has been effectually kept in check, notwithstanding the long continued abundance of money, *by the altered mode of action of both buyers and sellers*. All parties seem now determined upon holding the least possible weight of Stock—hence there is no apparent prospect of material upward movement. How far this may be changed by any increased confidence in political affairs we have yet to see—but the already high range of prices and continued absence of demand from America for manufactured goods, pressing especially upon the foreign markets, bids fair to prevent excitement. Throughout the year, with only very occasional exceptions, we have had to report no eagerness to purchase, scarcely currency of demand—*reluctant buyers and continued willing if not anxious sellers*—the one always acting as if with the conviction that prices had been dragged up beyond their natural level, the other as apprehending loss, and eager to realise the small modicum of profit apparent upon their importations; indeed so continued was the pressure upon the market during the months of *March, April, and May*, that prices were forced down 2s. to 3s. per lb. and it was only upon the announcement of peace in July, and the confirmation of the fears that the European crop would not prove less unfavourable than in 1858, that any material rally was noticeable. With such feelings it is not matter of surprise that the character of the year's trading should have been unsatisfactory, and the general result we fear scarcely less so, affording a very scanty remuneration for the extent of capital and enterprise employed. *Consumption has been very large, equal to the preceding year, which was the largest upon record, fully keeping pace with the supply*; the fluctuations in price, too, were not excessive considering the high point at which we started and the threatening and important events of the year. The lowest moment was the *middle of May*, when prices had fallen 10 to 15 per cent.; they are now almost at the highest point of the year,  $7\frac{1}{2}$  to 10 per cent. *higher than in January* (1859), and have so been quoted from the arrival of the first new China silk in August, from which period we have had a fidgetty market, constant little fluctuations of feeling rather than price, although at one moment nearly 1s. of the improvement was lost. Under the head of China silk we have this year included the importations from *Japan*; we should be glad in future that they should be sufficiently important to command a special notice and a separate head—the silk is good, and promises to be a most useful auxiliary in our increasing

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United States, although the largest on record—4,250,000 to 4,500,000—will not it is said, be more than sufficient to keep all the mills, including those now being erected, in working operation. Assuming that Great Britain has imported from the United States the two last years 4,000,000 bags of 4 cwt. each, the planters will have gained, at 3d. per lb. profit, the sum of 22,500,000*l.* sterling from this country alone—a fact fully accounting for the increased sensitiveness of the Southern mind on every incident connected with the question of slave labour.—*Ed. S. J.*

requirements, the better classes realising the highest prices of China silk. Of *Bengal Silk* we can at last give a more cheering account than for the last two years—the long looked for change has come. The reported failure in the European crop, aided in some measure, perhaps, by the short supply of Canton and Taysaam China, has made a large impression on our stock, and we are left with 4,000 bales less than last year, and this without diminution of supply—still this is no great thing. The importations from Bengal of last year have retrograded in quantity; we are, however, pleased to be able to report evidence of materially increased care in the reeling of the native filatures generally, and, therefore, look hopefully on the future. Of *Italian Silk* we have only to repeat the oft told story—again failure in the crop, exaggerated prices and minimum consumption. Of *Brutia Silk* we receive comparatively nothing—all goes, either as silk or in cocoons, to foreign markets less abundantly supplied than we are with China silk, and less competent to apply it advantageously. Of *Persian Silk* too, the importation continues unimportant.”

Messrs. Rose, Graham, and Wilson’s report:—

*Linseed*.—“The importation last year was the largest ever known, not only into London, but the United Kingdom, as will be seen by the following statistics viz.:—

	1859.	1858.	1857.
Imported into London ..... <i>qrs.</i>	400,467	319,000	221,680
Exported from London ..... ,,	90,162	136,325	32,100
Left for consumption .... ,,	310,305	182,675	189,580
Importation into U. K. .... ,,	1,196,250	962,835	1,039,000

	1856.	1855.	1854.
Imported into London ..... <i>qrs.</i>	262,787	305,043	254,400
Exported from London ..... ,,	38,500	123,109	67,686
Left for consumption .... ,,	224,287	181,934	186,714
Importation into U. K. .... ,,	1,175,900	757,400	825,000

“The fluctuations in Prices in 1859 were unimportant, taking Bombay and Calcutta as the standard. The *highest* prices were in *January, February, and March*, when the former was worth 55*s.* to 55*s.* 6*d.*, and the latter 52*s.* 6*d.* to 53*s.*; the *lowest* point reached was in *September and October*, when 46*s.* and 48*s.* was the value; to-day we quote Bombay 52*s.* and Calcutta 48*s.* to 50*s.* on the spot, the latter 47*s.* 6*d.* to 48*s.*, cost, freight, and insurance, including bags.

*Linseed Oil*.—“Owing to the increased consumption of linseed last year, the production of oil in the United Kingdom cannot be estimated at less than 55,500 tons, against 42,000 tons in 1858; the quantity taken for export was 28,000 tons, of which Hull supplied 15,000 tons, an excess of only 4,000 tons, compared with 1858, when it was 24,000 tons, thus showing an *improved home demand*; stocks throughout the country being by no means large, prices have ranged steadily the last twelve months, the highest touched being 30*l.* 10*s.* per ton in *February*, and the lowest 27*l.* 5*s.* to 27*l.* 10*s.* in *December*; the latter is the value to-day on the spot; 28*l.* January to March, and 28*l.* 10*s.* to 28*l.* 15*s.* April to June.

“*Olive Oils* have been influenced by advices received from the producing



countries during the last six months, which combine to show that the growing crops have been injured; *Gallipoli*, which in the month of June was purchaseable at 47*l.* 10*s.* per ton, has been since gradually on the advance, and is now worth 57*l.*; *Malaga*, 55*l.*; *Sicily*, 54*l.*; down to 50*l.* for *Mogadore*. Our stock is 1,029 tons.

*Cocoa-nut Oil*.—"The importation into the United Kingdom last year was 9,600 tons, of which 9,300 tons came to London, against 8,755 tons in 1858, and 9,500 tons in 1857; and the quantity taken for export was 6,150 tons, against 5,100 in 1858, and 5,470 in 1857; there was cleared for home consumption 4,136 tons, against 2,499 in 1858, and 2,450 tons in 1857.

"*Palm Oil* has ranged for months past at much beyond average prices, owing to the fictitious position of our tallow market; the lowest point it touched last year was 41*l.* per ton in January, and the highest 47*l.* in September; the value to-day is 45*l.* 10*s.* to 46*l.*"

The Hull Chamber of Commerce report as follows:—

*Flax*.—"The total import of Flax into Hull during the year, amounts to 13,635 tons, against 17,913 tons in 1858, and 19,459 tons in 1857; and of *Tow* and *Codilla* 3,937 tons, against 3,252 tons and 3,381 tons in the two previous years. The reduced imports of flax at this port are chiefly from *Riga*, *St. Petersburg*, and *Holland*. The stocks of flax at the close of 1858 were greatly reduced, chiefly owing to the large export of the article from Hull (and the Scotch flax ports) to *France* and *Belgium*. The year 1859 opened with great firmness, and during the months of *January* and *February* a decided rise in value took place. Prices in *Russia* greatly advanced, and were nearly equal to those paying by the spinners in this country, which, however, checked contract business for spring delivery. In *March* the spinners began to restrict their working in consequence of the high prices and the unremunerative rates obtained for yarns. The trade remained in a very inanimate and unsatisfactory condition for the next two or three months, the stocks being nearly swept off, while the uncertain aspect of continental politics induced great caution in the buyers, under the influence of which the holders were compelled to lower their demands. In *July* the expected Peace reassured the trade and somewhat strengthened the position of the holders. The previous reduction in prices induced the spinners to buy more freely, and a fair demand showed itself for all descriptions of flax, prices being now from 3*l.* to 4*l.* per ton below the opening rates of the year. In *August* a large business was done, and in some cases the holders obtained rather higher rates, the trade assuming a firmer aspect. *September* brought less animated markets, a quiet feeling prevailed, and prices were barely maintained. In *October* business continued on a limited scale, prices receding further 1*l.* to 2*l.* per ton. *November* opened with rather more inquiry, and the spinners became anxious under the indications of an early winter in *Russia*. The prices abroad began to fall, and the leading Scotch spinners, in particular, took largely of the fresh flax brought down to *Riga*. *December* commenced with quiet markets, and holders even of the best kinds, which generally during the year have been most saleable, evince more disposition to sell. The trade leaves off in a healthy state, the stocks are in a limited compass, and we anticipate, with reduced prices and the more favourable prospect of the settlement of political difficulties on the continent, a good steady consumptive demand during the coming season.

*Hemp*.—"The import of *Hemp* into our port from *Russia*, this year, is much the same as last, viz., 4,023 tons, against 4,159 tons last year. The anticipation at the close of 1858 of increased consumption, in consequence of the relatively high price of flax has not been realised, spinners having given the preference to *Italian Hemp*, of which the consumption has been very large. The extreme hardness and coarseness of the hemp shipped at *Riga* the past season has proved a barrier to its use even for usual purposes; this, combined with a good supply of clean of fair quality, has enabled the large ropers to obtain their supplies at below import cost. The price of clean, at the opening of the year, was 31*l.* to 31*l.* 10*s.* per ton, and closes at 28*l.*, its present value. Consumers are looking for a low range of prices for the article during the coming season."



Messrs. Churchill and Sim, of London, report :—

*Timber Trade.*—“ It is very important to review the trade in Wood during the year just closed, to trace the extent of the supply, to estimate the consumption, and to see how much stock has accumulated for use in this country, while the ports of America and the North of Europe are closed.

“ The wood trade of the *United Kingdom* is computed from the following tables of the Board of Trade :—

	1859.	1858.	1857.	1856.	1855.
<i>Imported—</i>					
Colonial timber, deals, &c.	1,300,000	1,095,771	1,346,824	1,223,748	958,301
Foreign .....	1,360,000	1,131,485	1,157,719	1,217,515	884,792
Total loads .....	2,660,000	2,227,256	2,504,543	2,441,263	1,843,093
<i>Consumption (apparent)—</i>					
Colonial timber, deals, &c.	1,300,000	1,095,771	1,340,762	1,214,605	942,713
Foreign .....	1,160,000	1,088,167	1,076,353	1,067,239	932,749
Total loads .....	2,460,000	2,183,938	2,417,115	2,281,844	1,875,462
<i>Imported duty free—</i>					
Oak staves, colonial, and } foreign, in loads .....	110,000	105,236	111,545	82,181	67,747

*Consumption in London during Five Years.*

	1859.	1858.	1857.	1856.	1855.
Sawn Wood — Battens, } boards and ends ... <i>pieces</i> }	7,050,000	6,975,000	6,134,000	6,778,000	6,802,000
Hewn Wood—Square and } round ..... <i>loads</i> }	245,000	218,000	190,000	185,000	182,000

“ The returns of the Board of Trade show that the wood trade of the United Kingdom has recently exceeded 2,500,000 loads, *about half this supply* being drawn from our colonies in British America, and most of the remainder from the north of Europe. From the tables of the wood trade in London we arrive at more definite results. The amount of tonnage shows that nearly *one-fourth part* of the trade of the kingdom centres in London. The *importation* in 1859 appears to have been 20 *per cent.* more than the average of the four preceding years ; and the consumption of sawn wood has increased 5 *per cent.*, and of hewn wood 25 *per cent.*

“ At the opening of the year 1859 there seemed every prospect of a healthy and vigorous trade throughout the country. Counteracting influences, however, disappointed this hope. The war in Italy affected all our commercial relations, and no sooner had the war ceased, than the wood trade was especially damaged by the builders' strike. We have shown that the consumption of wood has increased, but there has been no spirit, no confidence in speculation, no trust in the future. At the period when large quantities of wood should have been consumed, the ill-judged strike of the operatives sacrificed two valuable months in the year of the building trade.

“ The price of wood in the countries of its production has been *so much higher of late years* that an importation now seldom realizes its first cost. During the past year there was no disposition to pay the prices demanded in Russia and in

Sweden, until after the shipowners were compelled to carry the wood, in some instances for half, and in many two-thirds of the customary freight.

“There are again before us the elements of a better trade. We have cheap building materials in hand, the condition of all classes has improved, there is plenty of money, credit is sound, and the counteracting influences of the past year are not likely to recur.”

Messrs. Fisher, King, & Co., of London, report :—

*Leather.*—“The circumstances of the Leather Trade, under which we have the pleasure of addressing our friends, do not greatly differ from those which existed at the close of 1858. Throughout the past year a large amount of business has been done, and although it has varied considerably in animation and extent—the first and the last quarters being marked by comparative quiet, and the middle quarters exhibiting considerable activity, with increased prices—yet, regarded as a whole, it may be pronounced satisfactory. There has not been that excessive variation in prices which characterised the previous year; on the contrary, the rise which, as we have intimated, took place about the *middle of the year*, has been, and in all probability will continue to be, sustained. The import of raw goods during the year has undoubtedly been large; but it must not be forgotten that considerable quantities have been re-exported to the Continent. It should also be remembered that the stock of raw materials generally in merchants’ and tanners’ hands is unquestionably small, and as to leather there is no redundancy in any quarter whatever. Upon the whole, looking at the generally healthy condition of the trade, the comparative smallness of stocks held throughout the country, the *largely advancing demand* to which the prosperous and increasing population of the United Kingdom will give rise, combined with the steady demand for government purposes, we cannot but hope that the year on which we have just entered, will not be the least prosperous in the history of the leather trade.”

Messrs. Colchester and Woolner, report :—

*Tallow.*—“The Tallow Trade during the past year, has been in a most unsatisfactory state, the usual laws of supply and demand having been *entirely ignored* by a most unusual speculation. The stock on the 1st of January amounted to 33,757 casks, and the price was 51s. The new supply at St. Petersburg was estimated at 105,000 casks, and the wintering tallow was 10,000. (These figures proved correct.) The supply from South America was reported good, and the Continent was stated to have a good supply of home melt. It was therefore reasonable to presume that there was not room for much, if for any, advance in price. But even thus early, large purchases of tallow, by some speculators in Moscow (not connected with the trade), for delivery in *August*, began to attract attention, and prices then rose to 45 silver roubles. Many parties were induced to sell, expecting that when the barques arrived the operatives for the rise would be compelled to resell. In this, however, they were disappointed, for the party who first began the operation induced some men of standing to join him, and, with their own funds and advances obtained on the goods, they succeeded in maintaining the price and compelling those who were over-sold to settle at from 59 to 62 silver roubles, leaving them 25,000 casks in stock at St. Petersburg. They also, from time to time, sent orders to this market, and bought, it is estimated, from 15,000 to 17,000 casks here; this, with 16,000 casks consigned by them to three houses here, constitutes their interest on this side. The effect of these speculations may be seen by the consumption during the last six months, it having fallen off at the rate of 30 per cent., notwithstanding that the state of trade generally has been most healthy. But the feeling against these speculations has been so great, that consumers have resorted to every available substitute, *curtailing their consumption* as much as possible. This had the effect of increasing the stock by nearly 20,000 casks, and thus preventing the Moscow speculators from having the entire control of the market. We believe they have bought 5,000 to 7,000 casks for delivery in the first three months of this



year, so that when this shall be delivered there will be little first sort out of their hands. The stock to-day (January 2) is 44,454 casks."

#### IV.—Metals :—Iron.

Mr. William Colvin reports :—

*Scotch Iron Trade.*—"Throughout the past year our Pig Iron market has been comparatively free from violent fluctuations, the price having moved steadily between 47*s.* and 58*s.* 6*d.*, the average value for the 12 months being 51*s.* 9*d.* per ton.

"In *January* the market opened at 54*s.* cash, but the unsettled aspect of Continental politics, and consequent light demand for spring shipment, caused a gradual and almost uninterrupted decline till the price reached 49*s.*, at the time of the panic in the London Stock-Exchange about the end of *April*, and 47*s.* during the progress of the Austrian-French War in the months of May and June. The unexpected announcement of an Armistice between the belligerent Powers on the 8th of July, together with the reduction in the Russian duty which took place at this period, caused a sudden advance to 54*s.* 6*d.*; but the uncertain and complicated state in which Italian affairs were left by the Treaty of Villafranca, checked public confidence, and by the end of the month the price had receded to 52*s.* Thereafter the market continued depressed for some months, owing mainly to anxiety as to the continuance of our friendly relations with France—an advance given to the Colliers of 6*d.* per day, agreed to early in October, failing to exercise any favourable influence on prices.

"Towards the *middle of November*, as the feeling of alarm and distrust began to subside, some apprehension of a Strike in the mining districts, and a vague expectation of a reduction in the French duties, gave rise to a strong speculative movement, which, although not receiving much support from legitimate demand, or assistance from English buyers, has since been carried on with great spirit, forcing the price up to 58*s.* 9*d.* on the 29th of December—the highest point reached since March, 1858.

"The *Production*, estimated at 975,000 tons, although scarcely so great as that of last year, has exceeded the requirements of the trade by about 50,000 tons, the Stock in hand being thereby increased to 390,000 tons, of which 141,000 are in store, the balance in the makers' hands.

"Our Exports have been—

	1859.	1858.	1857.
United States ..... tons	85,187	51,600	42,200
British North America.... ,,	10,777	8,300	15,300
France ..... ,,	51,345	52,400	67,700
Germany ..... ,,	34,716	52,800	81,800

Mr. W. T. Thornburn also reports on the Scotch Iron Trade as follows :—

"The history of the Iron Trade is emphatically a history of progress. A hundred years ago the first furnace was completed in Scotland, the iron industry of which, by reason of the juxtaposition of coal, ironstone, lime, strong men, and cheap transit (a combination not yet known to exist in the same perfection in any

other country in the world) has since, although only of comparatively late years, assumed a magnitude truly astonishing. Down to 1825 the *annual* production had scarcely attained 30,000 tons, though the prices during that long period of time fluctuated between 6*l.* and 11*l.* per ton. Thereafter, whilst the infinite uses of Iron began more rapidly to extend, every fall in price stimulated invention to cheapen and enlarge its manufacture. To-day there are 125 *furnaces in blast*, and the computed make for the year just closing amounts to the unprecedented quantity of 950,000 tons. Notwithstanding the disturbed state of Europe, and the consequent great decrease in the exports to the Continent, the shipments and local consumption reached 915,000 tons, *being the largest in any year*, excepting 1853, and showing an increase of 105,000 tons over last year, and of 72,000 tons over 1857, when the price averaged 70*s.* per ton. The stocks are therefore now only 330,000 tons lying in warehousekeepers' and makers' stores. It will be observed that the aggregate total deliveries are nearly on a par with the production, and that when shipments were 60,000 tons per month, as in March, April, and May last, the supply from the makers proved inadequate, consequently inroads were made upon the stock in store, which is 9,000 tons less than twelve months ago. The average price is fully 15*s.* per ton *less than that of the last six years, and the lowest since 1852*. Touching 47*s.* in May last, when a dire feeling was excited, it afterwards veered between 48*s.* and 54*s.* till November, when an ascensional movement set in, and the highest price obtained has been 58*s.* 9*d.* in this week. But apart from occasional realisations and checks, the present sustained advance, though comparatively small, may be accepted as a testimony that the public are prepared for a higher range of prices. *The recent rise in Wages*—so readily granted by the iron masters, though the low prices then ruling warranted a refusal—is a significant fact of the scarcity of labour; and early in the new year a still further increase in the value of this commodity may be anticipated. Throughout the year the Malleable Iron works and foundries have continued in undiminished activity, and recently contracts to the extent of at least a million sterling have been made for Iron Shipbuilding on the Clyde. It is therefore to be hoped that one of our oldest and largest malleable works, which has stood idle since 1857, shall be required ere long to be put in full operation."

#### V.—*Cotton and Linen Trade :—Supply and Prices of Raw Cotton.*

Messrs. Colin Campbell and Son, of Liverpool, report:—

*Raw Cotton.*—"The import of Cotton Wool into Great Britain during 1859 amounted to 2,828,900 bales, being the largest on record, and 386,262 bales *in excess* of that of 1858. There has been an increase from every quarter, but chiefly from the United States of America and the East Indies. The actual stocks in the different ports of Great Britain reach in the aggregate 469,420 bales, being 97,440 bales more than was held a year ago. On the supposition that the trade hold the same quantity that they did twelve months ago, the *consumption* would amount to 2,294,410 bales, being 44,123 bales weekly, consisting of 36,668 American, 2,027 Brazil, 2,016 Egyptian, West India, &c., and 3,412 East India, against 41,338 bales weekly consumed in 1858, which consisted of 31,128 American, 2,155 Brazil, 1,809 Egyptian, West India, &c., and 6,146 East India.

"*Prices have fluctuated very little*, the extreme range for middling Orleans having been, during the year, from 6 $\frac{3}{8}$ *d.* to 7 $\frac{3}{8}$ *d.* per lb., and it is a remarkable fact, that notwithstanding the large production in America, the supplies came forward so gradually, that the stock in this port of American descriptions never exceeded 671,600 bales. The quantity was never inconveniently felt, except as arising out of the inferiority of the quality of a large proportion, which was so full of dust and sand as to be almost unsaleable, until forced off at ruinously low prices. It is confidently hoped that some determined measures will be introduced into the Southern States of America to put a stop to the evil.

"At this season of the year it is always difficult to form reliable estimates of



the *Future Supplies*. At the moment we feel justified in assuming that the crop of the *United States* may amount to fully 4,000,000 bales, in doing so, however, we would not be altogether influenced by the very large receipts into the American ports, as they are not a certain criterion of an excessive production, because the facilities for sending supplies from the interior by railways and other modes of transit are every year increasing. But it would appear that the season for picking has been unusually favourable, until within the last month, and it is generally admitted that a much *larger extent of land* has been brought under cultivation. With respect to the *Brazil and Egypt* we see no reason why the supplies thence should not be fully equal to an average. The prospects, too, are promising for an import from the *East Indies*, during the coming year, quite equal to that of the present, but much will depend upon the quantity that may be required for China, and the prices current in this market. Taking, then, all things into consideration, it does seem as though there would be an abundance of cotton for the requirements of the world, and if prices in America were only proportionate to the magnitude of the crop, we do not see why the new year should not be one of prosperity to all parties engaged in the trade, whether as importers or consumers. We may, however, venture to state, that the United States of America and the Continent of Europe will probably require a larger supply for their consumption than they have done during the present year, and if the spinning and manufacturing interests should continue profitable it would then be reasonable to anticipate a further increase in the consumption of Great Britain, as many new mills are likely to be brought into operation during the spring."

Messrs. D. Dewar, Son, and Sons, report:—

*Linen Trade*.—"The Pure Linen Trade of 1859 has been a very trying one throughout for both classes of producers—spinners and manufacturers—in consequence of the scarcity, much bad quality, and high prices of Flax and Tow. Yarns have not responded to flax prices, to make their production remunerative, nor have linen goods responded to the price of yarns—and this, too, in the face of restricted production of both. As linens include all goods made from *jute* and other mixtures, the Board of Trade returns, unless this is kept in view, are apt to give very erroneous ideas as to the state of this branch of the trade. When the increase in the consumption of *jute*, and therefore of *jute goods*, and especially when the comparative high values of this year compared with 1858, are considered, the last returns prove, if not the great diminution, at least the thorough stagnation of the legitimate or pure linen trade, and show distinctly that, in these days of cheap cottons and other mixed substitutes, it cannot be maintained under a course of high prices. Ground has been lost, and it will take a time of comparative cheapness to regain it, if even the substitutes introduced entirely disappear. This is a painful contrast with the condition of the Cotton Trade for the year now closing; and the attention of the whole linen trade should therefore seriously be directed to the consideration of their *future flax supply*, and the danger of their being dependent entirely upon one source. Those in the cotton trade are now reaping the fruits of their exertions in this particular.

"We have on several occasions urged upon those interested in the trade the necessity of providing a remedy. Our efforts, we are glad to say, have not been wholly unsuccessful, as there is now a fair prospect of steps being taken for the purpose. The question has, during the last eighteen months, received the most mature consideration, and the conclusion arrived at by all is, that it is to the *Punjab* we must direct our attention for an ample supply of the material of which we now stand so much in need. It was at first deemed advisable to form an association, but people generally were rather reluctant to subscribe towards its support, and therefore the idea has been given up. To this, however the formation of a company on a broad and popular basis has now succeeded. The object of the company is not to grow flax, but to encourage the natives in the cultivation of an article which will soon become the staple export of their country."

VI.—*Freight Market and Shipping Interest.*

Messrs. Seymour, Peacock, and Co., of London, report on—

“The position of the *Freight Market* during 1859, has unhappily realised the anticipations we formed of it in the closing remarks of our last annual circular. The shipping interest has suffered from severe depression throughout the year—every trade being unremunerative, notwithstanding an increase in the amount of imports and exports—and a marked decline in the production of English tonnage. The natural result of this state of affairs has been an increasing desire on the part of shipowners to withdraw their capital from an unprofitable investment, and shipping property has accordingly *been sold during the past year at one-fourth its legitimate value*. The cause of the great depression in the shipping interest is obviously the over production of tonnage—the supply being in excess of the demand—and it is equally clear that, inasmuch as British shipping has not increased in proportion to the increase in our imports and exports, the over production has been occasioned by the stimulus given to foreign nations by the unreserved opening of our enormous trade. The only legitimate remedy for the evil is the opening of the trade of the world to British shipping, by which means the English owner will be placed on an equal footing with his foreign competitors; and the problem for solution is, how to accomplish this free trade all over the world by a system of thorough reciprocity. The movement in favour of justice to the shipping interest has made fair progress during the past year, in spite of many difficulties and much discouragement. The Government has met the complaints of this important interest with cold indifference; the country has been too ready to refuse examination of the great question at issue, upon the plea that the movement was “Protectionist,” and in opposition to the supposed “free trade” (?) system of the country; while the shipping interests themselves, untaught in the arts of political agitation, have been wanting in that zealous, active, persevering determination which marked the proceedings of the Anti-Corn Law League and similar movements. Early in the Session the Government declined to undertake any legislation having reference to the special burdens and restrictions on shipping, but the House of Commons consented to the appointment of a Committee of Inquiry into their nature, the existence of which was suddenly terminated by the dissolution of Parliament on the 23rd of April. Parliament re-assembled on the 31st May; on the 10th June ministers were defeated, and resigned, and a change in the Government was added to the interruption of public business already occasioned by the dissolution. The Session became too short for considering the claims of the English shipowners, and upon the prorogation of Parliament on the 13th August, nothing had been done to remedy the evils complained of. We have endeavoured throughout the year to advocate, as opportunities offered, the claims of the shipping interest. Early in January we directed attention to the question of the *American Coasting Trade*, by the publication of a correspondence with the Earl of Malmesbury, then Foreign Secretary, who was induced by the facts we laid before him, to communicate with the Government at Washington, urging the justice of opening their vast coasting trade to English shipping. The depressed condition of the shipping interest forms a marked exception to most other interests in the country, trade and commerce having increased wonderfully during the year, in spite of many disturbing influences. The declared value of exports of British manufactures exceeds 130,000,000*l.*, being not less than 13,000,000*l.*, in excess of the preceding year, while the value of imports, including 36,000,000*l.* of bullion, exhibits an equally favourable result. These figures are suggestive of the importance of maintaining the English mercantile marine, which can be depended upon under every aspect of political affairs, for conducting the enormous carrying trade of this country and her dependencies, and providing men for the navy in the event of a necessity arising for the protection of this vast trade. When the millenium of universal peace arrives, it will be time



enough to discard the British shipping interest, and abandon it to the tender mercies of political theorists.”\*

Messrs. Alfred Laming and Co., also report:—

“We have in our annual circulars for several years past endeavoured to impress our friends with the fact of the freight market being unduly depressed by *excessive building*, and it still appears that that cause of evil, which reached its climax during the Australian *furor* in 1853, remains still to be deprecated at the close of 1859; but we are glad to perceive, by the following statistics, that the evil of over-building is, although not at an end, on the decrease.

“Table showing the tonnage of *Sailing Vessels* built in the United Kingdom:—

1855.	1856.	1857.	1858.
242,182 .....	187,005 .....	197,554 .....	154,930

“It is plain to perceive that the building cannot so go on progressively diminishing without soon becoming simply equivalent to the requirements of a commerce constantly increasing; we are, therefore, justified in expecting, notwithstanding another year’s depression, that the shipping interest is about to experience an improvement that will be satisfactory to those engaged in it, especially if they obtain those ameliorations which we hope will remove several of the burdens bearing upon it in the form of passing tolls, light-dues, local charges, and the like.† During the whole of the past year, shipowners have had to contend with insufficient

\* The “Times” of 17th January, 1860, quoting from a correspondent, contained the following statement of the rates of freight per ton, dead weight (d.w.), and measurement (meas.), in each of the three years 1857-9. The depression in *Home* rates in 1859 is very striking.—Ed. S. J.

Years.	Outwards.						Homewards.					
	Calcutta, d. w.		Bombay, d. w.		Shanghai, meas.		Calcutta, d. w.		Bombay, d. w.		Shanghai, meas.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1859....	42	6	40	—	45	—	15	—	10	—	30	—
58....	32	6	30	—	40	—	40	—	30	—	50	—
57....	32	6	25	—	40	—	79	—	50	—	80	—

† A return from Sunderland gives the number of vessels built in the Wear, 1853-9, as follows:—

Year.	Ships.	Tonnage.	Average Tonnage.	Year.	Ships.	Tonnage.	Average Tonnage.
1853....	152	68,479	454	1857....	143	54,789	383
54....	151	66,929	443	58....	110	42,003	381
55....	151	61,159	405	59...	100	36,184	361
56....	154	63,049	409				

freights homewards from the *East*, many ships having even had to return without cargoes, or at a freight almost nominal ; thus unaided homeward, outward freights have necessarily ruled high, assisted as they have been by the heavy requirements for Coal and Railway materials. In *April* the prospect of the Italian war gave a great impetus to shipments in coal to the French and Mediterranean ports, causing a considerable rise in freights—a favourable state of things that became soon temporarily suspended by the Royal Proclamation which followed the breaking out of the war, making it doubtful whether Coals would be declared contraband of war ; and which doubt transferred for the moment an important proportion of the business to *American flags*, nearly 10,000 tons of their shipping having thus been taken up within a week. *Screw Steamers* during the past year have proved more remunerative ; this assertion is not only justified by our own personal experience, but we think the fact must be general, for were it not so we should not be able to understand how such an enormous increase as the following figures show could have taken place. A far greater amount of *steam tonnage* has been employed than in former years. To this circumstance we desire particularly to direct the attention of our friends, for we believe it points to the true solution of the difficulty which surrounds their interests. Daily observation is placing it beyond a doubt that *screw steamers* are effective in superseding sailing vessels on all voyages which have yet fallen within their coaling powers, and we cannot see any reason for limiting the fact to our present experience. Recent improvements in steam machinery are absorbing great attention, and must result in economising the expenditure of coal, which more than anything else will tend to increase prosperity ; already we see instances in which a saving of from 15 to 30 per cent. has been effected, and in one screw steamer it has amounted to 60 per cent., with the same results as to speed. We believe that when science has completed these economical improvements it will be found that as great an advance has been made upon the advantages of Screw Steamer as the screw steamer has already made over the paddle-wheel.

“ We have taken repeated opportunities for calling attention to the growing increase in the employment of Screw Steamers, to which we cannot hesitate to ascribe in great measure the depression felt by owners of sailing ships. That the true magnitude of this cause alone may be properly estimated, we need only direct attention to the following accounts, from which it will be seen that the increase of Steam Shipping in our Coasting and Foreign trade has in eight years amounted to about 250 per cent.

“ *Table showing tonnage of steam-vessels of the United Kingdom employed in Home and Foreign trade :—*

Years.	Tonnage.	Years.	Tonnage.
1850 .....	104,680	1855 .....	288,957
1851 .....	144,741	1856 .....	331,055
1852 .....	165,219	1857 .....	381,363
1853 .....	218,260	1858 .....	363,204
1854 .....	212,637		

“ It will be interesting in connection with the above figures to show the extraordinary advance in the employment of Screw Steamers in particular trades ; those of the Baltic and Mediterranean, for example, in which seas they were comparatively unknown a few years since. Thus we have had during 1858 entered Inwards and cleared Outwards from the United Kingdom (including their repeated voyages) the following amounts of Steam tonnage:—To and from Russia 194,144 tons ; Sweden 50,761 tons ; Norway, 28,367 tons ; Denmark 107,012 tons ; Prussia 127,572 tons ; Germany 630,404 tons ; Holland 661,338 tons ; Belgium 286,052 tons ; Italian States 108,801 tons ; Greece and Ionian Islands 25,011 tons ; and Turkey, 68,219 tons.

“ We further see an indication of what is taking place in the fact that, while our registered *Sailing tonnage* for the year 1858 exhibited an increase of only



30 per cent, on the year 1850, the increase on our registered *Steam* tonnage for 1858 on 1859 amounted to 264 *per cent.*, the figures being as under :—

“ Tonnage of Sailing and Steam Vessels Registered—

	Sailing Vessel.	Steam Vessel.
1850 .....	119,111 .....	14,584
1858 .....	154,930 .....	58,150

“ The increase in steam tonnage afloat is even larger than this return would make it appear, for it must be borne in mind that the casualties to which sailing and steam vessels are liable, are proportionately greater for the former than the latter ; thus, while in 1858 we have 154,930 tons of sailing tonnage registered, and 131,446 tons wrecked during that period., we find 53,150 tons steam shipping registered in 1858, and only 5,720 tons wrecked.”

From the Circular of Messrs. Curry, Kellock, and Co.:—

“ We were obliged to commence our last annual letter by advising you of ‘another year of diminished sales of shipping as compared with the previous one of about 18 per cent.,’ and though we have a falling off to report this year likewise, it is happily not to the same extent as last—the sales being 461 ships, equal to 220,421 tons, against 482, equal to 221,419 tons in 1858, and 586, equal to 258,868 tons in 1857, showing a decrease of 21 ships, equal to 998 tons, as compared with 1858. The sales of new colonial ships show an extraordinary reduction both as to number and tonnage, being but 42=33,294 tons, against 99=47,966 in 1858. A very large business has been done the past year throughout the country in the sale of *Screw Steamers* (which seem to be daily more inquired for), a considerable number of which have been purchased for foreign account. The prices obtained for British high-class ships have been *considerably less* than for many years past, especially on the east coast. *Liverpool and Cumberland builders have all but ceased to build except for order.* Very superior twelve years ships, with Baltic outfit, can be purchased at 13*l.* per ton. *Iron first-class vessels* from 400 to 500 tons are much inquired for. For new Colonial seven years A ships, of very superior quality, we have obtained as high as 8*l.* 10*s.*, but in general the price has ranged from 7*l.* to 8*l.* Good second-hand vessels from 800 to 1,500 tons, suitable for the cotton or timber trades, or the conveyance of Coals to the East, are in good demand. You are already informed our present stock of ships on sale is only 70, against 122 held last January. The total number of *Plantation ships* to come home this year will not exceed 36 of all sizes, none of which will be launched before July, or are likely to arrive here before August, and taking the supply from the *Tyne*, which is the largest producing locality in the United Kingdom, at less than 30, including wood and iron steam and sailing ships, of which about 20 (mostly screw steamers) are being built to order, we may closely estimate what is to be expected from all other British sources. We have an increasing trade, while tonnage is decreasing, as shown from the official statistics of the year made up to the 30th November, discovering the losses to be 1,778 sail of ships against 1,462 in 1858, and 1,147 in 1857. With these facts before us, and an expanding trade, there seems but one conclusion to arrive at. We trust colonial and other builders may not be induced from these statements to believe we are likely to have a famine of ships within the next two years, and rush impetuously into building ; we anxiously warn them against so fatal a step. They must bear in mind *Screw Steamers* are very greatly on the increase, and that every screw steamer afloat is doing, and will do, the work of from four to five sailing ships of similar size. For example, the 20 Screws we refer to as building in the *Tyne* will occupy the place, when in work, of from 80 to 100 ships of similar capacity. There is, and ever will be, an enormous trade which must be done by sailing ships, but it must be borne in mind there are many trades which have been wholly absorbed by steamers, and there are many others daily following in their wake.”

VII.—*Foreign and Colonial Loans and Bank Rates of Discount.*

On the 7th January (1859), Bonds of the Government of the Colony of Victoria, required for Railway expenditure, to the amount of 1,000,000, were readily taken at 107.

In April ('59), Russia invited proposals here and abroad for a loan of 12 millions sterling in 3 per cent. stock, at 67; but the outbreak of the Italian war caused the withdrawal of the scheme. It was revived on 12 Aug. ('59), but met with far more response on the Continent than here, (perhaps 4 millions might be subscribed for in this country).

On the 21st April ('59), the Council of India obtained subscriptions to the extent of 5,077,000*l.*, at 97, towards a loan of 7,000,000*l.* in *Four* per cent. Debentures. On the 12th August ('59), the Council raised a further 5,000,000*l.* in *Five* per cent. Stock (managed at the Bank of England) at terms rather better than 97.

In *France* a loan of 20,000,000*l.*, required for the Italian war was readily taken in *Three* per cents. at  $60\frac{1}{2}$ , or in  $4\frac{1}{2}$  per cents. at 90.

In November ('59), a sum of 620,000*l.* was raised for Turkey in *Six* per cents., at  $62\frac{1}{2}$ .

In December ('59), a capital of 2,000,000*l.* was subscribed for the San Paulo Railway, in Brazil, guaranteed 7 per cent. by the Government of that country.

Two new Marine Insurance Companies, the Ocean and Universal, were set up in London towards the close of '59, and a large number of joint stock schemes, of various kinds, were started about the same time.

It is probable that the payments in this country, in 1859, in connexion with Foreign Loans, and Railways, and other Foreign Securities, reached 23,000,000*l.*

The improvement during the year in the market price of the principal lines of British Railways was about 5 per cent.

In October ('59), Long Annuities expired to the amount of 306,000*l.* per annum, and on 5th January (60), a *further* series to the amount of 1,599,500*l.* per annum.

On the 26th April ('59), commenced, on the London Stock Exchange, the memorable panic, occasioned primarily by a statement in the *Times* newspaper, to the effect that a treaty or intimate alliance had been established between France and Russia. The panic continued till 5th May, and led to between twenty and thirty failures. The fall in Consols amounted at one period to  $7\frac{1}{2}$  per cent., and in Railway Shares to 5 @ 10 per cent.

At the commencement of 1859 the rate of Discount at the Bank of England was  $2\frac{1}{2}$  per cent.; the total Bullion being 19 millions and the Banking Reserve 13 millions. There were *five* alterations of the



minimum rate in the course of 1859, and two alterations in the latter part of the first month of 1860. The Total Bullion at the close of 1859 was about  $2\frac{1}{2}$  millions *less* than at the close of 1858, or a fall from 19 to  $16\frac{1}{2}$  millions. The Banking Reserve was nearly 4 millions *less*, or a fall from  $12\frac{3}{4}$  to 9 millions.

The following figures will indicate the position of the Bank of England at the dates of the several alterations of the Rate.

Dates.	Bank of England Minimum Rate of Discount.	Total Bullion.  (000's omittd.)	Banking Reserve.  (000's omittd.)	Circulation, (inclg. Bank P Bills.)  (000's omittd.)	Consols.
	Per cent.	£	£	£	£
1858— 9 Dec. ....	$2\frac{1}{2}$	18,920,	13,360,	20,830,	$97\frac{1}{2}$
1859—28 April.....	$3\frac{1}{2}$	17,640,	10,180,	22,700,	95
„ 5 May .....	$4\frac{1}{2}$	17,200,	9,420,	23,040,	90
„ 2 June .....	$3\frac{1}{2}$	17,760,	11,140,	21,880,	93
„ 9 „ .....	3	17,960,	11,300,	21,880,	94
„ 14 July .....	$2\frac{1}{2}$	17,940,	10,700,	22,570,	93
1860—19 Jan. ....	3	15,880,	8,300,	22,910,	95
„ 31 „ .....	4	14,940,	7,510,	22,690,	$94\frac{1}{2}$

### VIII.—Course of Prices in 1859.

In the Appendix to this Paper are given tables which exhibit a comparative statement of the prices of leading commodities at the close of 1859 and 1858, and at certain other prior periods. The construction of these tables is described in a note prefixed to them.

Comparing the Prices of *1st January*, 1860, with the Prices of *1st January*, 1859, the following results appear:—

(1.)—In the two articles of—

Saltpetre, | Iron,

the prices at 1st January, 1860 are *markedly lower*.

(2.)—In the sixteen articles of—

Coffee,	Butter,	Flax,	*Oils,
Sugar,	Butchers' Meat,	Hemp,	Ashes,
Rum,	Cotton, Raw,	Wool (Sheeps')	Lead,
Tobacco,	*Silk, Raw,	Dyes,	Steel,

the prices at 1st January, 1860, are the *same* as at 1st January, 1859, or in a *small degree lower*.

(3.)—In the six articles of—

*Tea,	*Tallow,	Copper,
Timber,	Leather,	Tin,

the prices at 1st January, 1860, are *more or less higher*, but not very markedly so.

*Note*—A star (\*) is placed against the articles at present (1859-60) under the influence of special disturbing cause.

In connexion with these results it is necessary to bear in mind that in the course of 1859 the prices of *Tea* and *Silk* have been largely influenced by the hostilities with China; that *Tallow* has been affected by a gigantic speculation set afloat in Russia for monopolising the article, and as a consequence, that the prices of *Oils* have been collaterally affected by the same cause.

The year 1859 has been one of Cheap Corn, and of general and profitable activity in nearly every branch of trade. The Shipping interest has been almost alone in its continued complaints of unremunerative demand.

IX.—*Comparative Prices of the Six Years, 1845-50, and at subsequent Dates.*

The Appendix also contains a statement of the Average Prices of leading commodities during the *Six Years* 1845-1850, that is, during the six years immediately preceding any marked influx of the New Gold. These average prices, as explained in the Appendix, have been carefully compiled, and the results are now, for the first time, published. It is probable that the average prices of the Six Years 1845-50, constitute a safe and fair standard by which to represent the range of prices prevailing in the wholesale markets of the United Kingdom in the period immediately prior to the Gold discoveries.

In the absence of this Average I have been led, in former inquiries on the subject, to employ as a conditional standard, the prices of *1st January*, 1851; and it has been objected, not without some reason, that the prices of a particular date after 1850 were on many grounds unsatisfactory and insufficient for the purposes of a standard; and, moreover, that the prices of *1st January*, 1851, were exceptionally high.

It is now open to any person to compare the figures both for the *Six Years* and for *January* 1851, and I am glad to find that my former employment of the facts as they stood at the latter date is not open to any serious objection, for it appears by Table (B) that out of the *twenty-two* commodities there given, the prices of *fifteen* were, on the average, *lower* on *1st January*, 1851, than during the preceding *Six Years* 1845-50.

Two classes of comparisons may be made with advantage, founded on the *Six Years' Average*, namely:—

*First.*—Between the six years' average and the range of prices prevailing at the present time, or say *1st January*, 1860.

*Second.*—Between the prices prevailing at the period, *1st July*, 1857, when they attained their greatest recent elevation, and the present time.

As regards the *first* comparison,—that is between the *Six Years'*



(1845-50) average and 1st January, 1860, the results are as follows:—

(1.) In the six articles—

Sugar,		Hemp,		Timber,
Wheat,		Logwood,		Iron.

the prices on 1st January, 1860, are *lower*.

(2.) In the three articles—

Rum,		Butchers' Meat,		Cotton, Raw,
------	--	-----------------	--	--------------

the prices are nearly the same.

(3.) In the ten articles—

Coffee,		*Oils,		Lead,
Flax,		*Tallow,		Cotton Yarn,
Wool (Sheep's),		Copper,		„ Cloth,
Indigo,				

the prices at present are 20 @ 30 per cent. *higher* than the Six Years' Average.

(4.) In the four articles—

Tobacco,		Leather,
*Silk, Raw,		Tin,

the present prices are more than 30 per cent. *higher*.

As regards the *second* comparison, that is between 1st July, 1857, and the *present time*.

(1.) In the nineteen articles—

Coffee,	Wheat,	Logwood,	Leather,	Lead,
Sugar,	Cotton, Raw,	*Oils,	Ashes,	Steel,
Rum,	*Silk,	Timber,	Copper,	Tin,
Tobacco,	Hemp,	*Tallow,	Iron,	

the present prices are 10 @ 40 per cent. *lower*.

(2.) In the eight articles—

*Tea,	Butchers' Meat,	Sheep's Wool,	Saltpetre,
Butter,	Flax,	Indigo,	Cotton Yarn,

the present prices are the same or nearly so.

(3.) In only one article—

Cotton Cloth,

are present prices higher than on 1st July, 1857.

The figures which indicate the variations in the amount of the total Bank Note Circulation of Great Britain—that is of *both* the Bank of England and of the Provincial Banks of England, Wales, and Scotland—are curious and suggestive.\* Taking the average of this Circulation at 32 Millions, the variations are, by comparison,

\* The Bank Note Circulation of *Ireland* during the Six Years 1845-50, was so constantly depressed by the Famine, that the employment of the Irish average for those years is, for present purposes, inadmissible.

very trifling, and certainly exhibit no connection, either in degree or date, with the variations in prices. Singularly enough the *lowest* amount but one of Circulation occurs at the time (1st July, 1857) of the *highest* range of prices. I am far from saying that the vastly enlarged and multiplied dealings of the last six or seven years have been carried on by means of the same quantity of Bank Notes and Coin as were previously in use. But the increase in the circulating medium required has been in *Coin*—and that increase, as I endeavoured to show in the sixth column of the History of Prices, has been far greater than is generally supposed.

Without attempting in this place to quote details, it may assist the general view of the facts, to say that during the eleven years 1849-59, the quantity of New Gold produced in California and Australia, may be stated at not less than 260 Millions sterling: and assuming, as there is good reason to do, that the quantity of Gold existing in various forms in 1848 in Europe and America was 560 Millions, the additions have been equal to nearly 50 *per cent.* of that quantity.

One of the Tables (F) in the Appendix gives the annual average rates of Exchange from 1841 to 1859 between London and the principal places on the Continent where a silver standard prevails, viz., Paris, Hamburgh, and Amsterdam. Since 1850 the fall in the London rate seems to have been not more than  $2\frac{1}{2}$  per cent. It appears also from the same table that the rise in London in the price of standard silver has been not more than 3 per cent.\*

\* The *Times* of 8th February, 1860, contained the following statement relative to alleged recent large discoveries of *Silver* in California:—

“Recent American mails have brought statements regarding great *Silver* discoveries in California; but they have been vague, and apparently as little trustworthy as the tales of gold quartz commonly circulated about six or seven years ago. By the last accounts, however, they are repeated from respectable sources, and there now seems little doubt that mines have been found of considerable value. They appear to be situated on the slope of the Sierra Nevada, at the eastern extremity of the state, close to the territory of Western Utah, between a place called Honey Lake Valley and Walker’s River, and their distance from San Francisco in a north-easterly direction is little short of 300 miles, the journey occupying three days and a half. The spot was found by gold miners early in August last, and the main vein is now alleged to have been followed for 36 miles, the ore generally cropping out from the ground, and being easy to work. It is further alleged that shafts have been sunk 20 or 30 feet, on the vein without finding its depth, and that the ore, of which 50 or 60 tons have been received at San Francisco, and the assays of which show a value of 500*l.*, 600*l.*, and even 1,000*l.* per ton, prove richer in proportion as they descend. A portion of these ores will be smelted at San Francisco, but it was thought that some would be forwarded to London. Hench and Co., a banking firm, had agreed to advance 20,000*l.* on 50 tons, to be shipped by them to Europe. ‘During the winter,’ it is observed, ‘but little ore can be hauled over the mountains. Next year the amount that will be taken from these mines will astonish the world.’”



It is not my purpose in this place to discuss the large and general questions connected with the effects produced by the Influx of the new gold. I content myself with suggesting two general inferences which seem to be justified by an examination of the facts relating to the average prices of the six years, 1845-50, and the prices of the present time, and of the intermediate dates since 1850, viz. :—

1. That at least the facts do not exhibit any continuous or general rise of Prices.
2. That nearly all the most marked cases of variation from the Six Years' average admit of special explanation.

### X.—*Explanatory Notes as regards the following* APPENDIX OF TABLES.

The first and principal Table (A) in this Appendix exhibits the Wholesale Prices, in London and Manchester, of forty-one leading commodities at various periods from the opening of 1845 to the close of 1859. In those cases where Import Duties apply the prices *in bond* are of course given. The first line of the table gives the *average price* of several articles for the *Six Years* 1845-50, and is now published for the first time. It is followed by six quotations for dates subsequent to 1850. Care has been taken to compile the figures from the same source, and in the same manner throughout. The authority employed has been the weekly return of prices given in the *Economist* newspaper. The results for the six years, 1845-50, is the average of the quotations appearing on the first days of January, April, July, and October, in each year. The articles included in the table, and the arrangement of the table itself, correspond with the analogous observations which the late Mr. Tooke and myself were led to adopt in the fifth and sixth volumes of the *History of Prices* (published early in 1857), as on the whole the best mode of arriving at a definite view of the facts relating to the course of prices.

The second Table (B) reduces into more manageable form the results of the table of details which precede it. In (B) all the variations are measured from a fixed basis of 100; and as explained at the foot of the table, it is not difficult, by the aid of this method, to simplify to a large extent the questions to be further investigated.

In Tables (C) (D) are given the *Imports* and the *Exports* of leading commodities in each of six years, from 1845 to 1860, with the view of exhibiting that in some of the most important articles (*e. g.* sugar) the imports have been nearly doubled, and in all have largely increased. This large and rapid increase of demand is obviously a most important element to be considered in relation to the course of prices.

Table (E) gives the exports of Gold and Silver to India and the East, 1851-9.

In Table (F) a statement is given of the average annual quotations of the Foreign Exchange at *London* on Paris, *Hamburgh*, and *Amsterdam*; and at *Calcutta* on London. It also gives the price of standard Silver in London. The quotations are obtained from the official weekly list in the *Economist*, and from the Appendices to the Reports of the Banking Committees of 1848 and 1857-8. The expression of the annual result is the average of two quotations in each month of each year.

Table (G) contains the average annual *Gazette* prices of six kinds of Grain during the twenty years 1840-59, and is intended to point out the important circumstance that during the last five years (1855-9) the prices of the *inferior* kinds of grain have been 10 to 15 per cent. higher than during the ten years 1840-9; and hence that the cost of butchers' meat, &c., has been proportionately affected.

(A.)—*Wholesale PRICES of Commodities in LONDON and MANCHESTER.—Average of SIX YEARS, 1845-50 ;—and at Six Dates, 1851-59.*

DATES.	(I.) COLONIAL AND TROPICAL PRODUCE (FOOD).							
	1	2		3	4	5	6	7
	Coffee.	Sugar.			Rum.	Tea.	Tobacco.	Butter.
	Jamaica, Fine Ord. to Mid., (bond) pr. cwt.	Brit. Plan. Yellow, (bond) pr. cwt.	Avg. Gaz. Price, B. P. and E. I., (bond) pr. cwt.		Jamaica, 15 c. 15. 0 p., (bond) pr. cwt.	Congou, Com. to Mid., (bond) pr. lb.	Virginian Leaf, (bond) pr. lb.	Waterford.
	s. s.	s. s.	s. d.		d. d.	d.	d.	s.
5—'50, { Avge. six Yrs. }	44 @ 54	28 @ 30	29 —		34 @ 38	9½	4½	82
1—1 Jan. ....	53 ,, 58	26 ,, 28	29 9		30 ,, 32	12	4½ @ 10	80
3—1 July .....	50 ,, 58	20 ,, 23	24 8		32 ,, 34	12	2½ ,, 7½	84
7—1 ,, .....	68 ,, 80	40 ,, 44	45 9		52 ,, 56	15	8 ,, 11	100
8—1 Jan. ....	50 ,, 62	23 ,, 26	26 7		44 ,, 48	13	7½ ,, 10	110
9—1 ,, .....	56 ,, 71	22 ,, 26	27 —		36 ,, 40	11	5 ,, 10	105
10—1 ,, .....	58 ,, 71	22 ,, 26	24 8		38 ,, 42	15	5 ,, 8½	105

DATES.	(II.) WHEAT (ENG. AND W.):—AND BUTCHERS' MEAT (NEWGATE MKT.)						
	8	9		10	11	12	13
	Wheat.	Beef.			Mutton.		Pork.
	Gazette Monthly Average. Pr. imp. qr.	Inferior Midlg. Pr. 8 lbs.	Prime Large, Pr. 8 lbs.		Midling, Pr. 8 lbs.	Prime, Pr. 8 lbs.	Large, Pr. 8 lbs.
	s. d.	d. d.	d. d.		d. d.	d. d.	d. d.
5—'50, { Avge. six Yrs. }	53 —	34 @ 36	38 @ 40		42 @ 46	48 @ 50	39 @ 47
1—1 Jan. ....	38 1	28 ,, 30	32 ,, 36		34 ,, 42	44 ,, 46	30 ,, 42
3—1 July .....	44 11	40 ,, 42	42 ,, 44		46 ,, 50	52 ,, 56	40 ,, 44
7—1 ,, .....	63 4	36 ,, 40	42 ,, 46		40 ,, 46	48 ,, 52	42 ,, 48
8—1 Jan. ....	48 7	42 ,, 44	46 ,, 50		42 ,, 48	50 ,, 58	42 ,, 52
9—1 ,, .....	40 6	42 ,, 44	46 ,, 48		44 ,, 50	52 ,, 56	36 ,, 44
10—1 ,, .....	44 2	36 ,, 40	42 ,, 48		44 ,, 50	52 ,, 54	42 ,, 50



## (A.)—Wholesale Prices—Contd.

DATES.	(III.) RAW MATERIALS OF MANUFACTURE.									
	14	15	16	17	18	19	20	21	22	
	Cotton, Raw.	Silk, Raw.	Flax.	Hemp.	Sheep's Wool.			Dyes.		
	Upland Fair. Pr. lb.	Cossimby. Pr. lb.	Friesland. Pr. ton.	St. Petersb. Clean Pr. ton.	Eng. South- Down. P.240lbs.	South Australia Lambs. Pr. lb.	South Australia Locks. Pr. lb.	Logwood, Jama. Pr. ton.	Indigo, Bengal. Pr. lb.	
	d.	s. s.	£ £	£	£	d. d.	d. d.	s. s.	s. d. s.	
'45—'50, { Avge. six Yrs. }	5½	9 @ 14	41 @ 47	32	13	12 @ 22	7 @ 12	87 @ 93	1 9 @ 5	
'51—1 Jan.....	7⅞	9,, 17	38,, 46	30	14	18	10,, 14	70,, 80	3 -,, 6	
'53—1 July.....	6½	12,, 15	42,, 55	35½	19¼	17	7,, 17	105,, 119	4 9,, 7	
'57—1 ,, .....	8¼	17,, 30	50,, 65	35	19	18 @ 26	13,, 19	105	1 8,, 7	
'58—1 Jan.....	6¼	14,, 22	,,	29	13	16,, 21	7,, 16	,,	2 6,, 10	
'59—1 ,, .....	5¾	12,, 20	,,	29	19	18,, 25	5,, 16	,,	1 -,, 8	
'60—1 ,, .....	5¼	12,, 23	65	28	19	22,, 25	7,, 13	80 @ 85	2 -,, 8	

DATES.	(III.) RAW MATERIALS—Continued.									
	23	24	25	26	27	28	29	30	31	
	Oils.			Timber.		Tallow.	Leather.	Saltpetre.	Ashe	
	Seal. P. 252 gls.	Olive Gallipoli. Pr. ton.	Palm. Pr. ton.	Dantzic and Memel. Pr. load.	Canadian Yellow Pine. Pr. load.	St. Peters- burgh 1st Y. C. Pr. cwt.	English Butts, 28-36. Pr. lb.	English Refined. Pr. cwt.	Canas Pearl	
	£	£	£	s. s.	s. s.	s.	d. d.	s. s.	s.	
45—'50, { Avge. six Yrs. }	31½	44	32	71 @ 81	65 @ 71	44	13 @ 23	26 @ 28	31	
'51—1 Jan. ....	37	43	29	60,, 70	55,, 60	38	12,, 23	27,, 29	30	
'53—1 July.....	33½	71	36	72,, 80	70,, 85	49	14,, 22	24,, 28	28	
'57—1 ,, .....	46	58	47	57,, 80	75,, 85	65	24,, 30	38	45	
'58—1 Jan.....	39	51	40	57,, 85	70,, 75	52	20,, 27	43	36	
'59—1 ,, .....	37	50	40	55,, 70	65,, 70	51	12,, 30	45	33	
'60—1 ,, .....	33	57	46	55,, 82	70,, 75	58	18,, 32	40	33	

## (A.)—Wholesale Prices—Contd.

DATES.	(IV.) METALS.						(V.) MANCHESTER MARKETS.					
	32	33	34	35	36	37	38	39	40	41		
	Copper	Iron.		Lead.	Steel.	Tin.	Yarn.	Cotton Cloth.		Raw Cotton.		
	Tough Cake. Pr. ton.	British Bars. Pr. ton.	Swedish (Bond.) Pr. ton.	English Pigs. Pr. ton.	Swedish Kegs. Pr. ton.	English Bars in Barrels. Pr. ton.	Mule 40, Fair, 2nd qual.	Printers' 26 in 66 Reeds. 27 yards, 4 lb. 2 oz.	Gold-end Shirtings, 40 in 66 Reeds. 37½ yards, 8 lb. 12 oz.	Upland, Good, Fair. Pr. lb.		
	£	£	£	£	£	£	d.	s. d.	s. d.	d.		
5—'50, { Avge. six Yrs. }	88	8	11 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	85 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	4 7 <sup>3</sup> / <sub>4</sub>	8 10	5 <sup>3</sup> / <sub>4</sub>		
51—1 Jan.....	84	6	11 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>	15	84	12 <sup>1</sup> / <sub>2</sub>	5 2	10 10	8		
53—1 July.....	107	9 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>2</sub>	17	108	10 <sup>1</sup> / <sub>4</sub>	5 -	9 6	6 <sup>3</sup> / <sub>8</sub>		
57—1 ,, .....	117	8 <sup>1</sup> / <sub>4</sub>	16	25	21	143	12 <sup>1</sup> / <sub>8</sub>	5 4 <sup>1</sup> / <sub>2</sub>	9 10 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>		
58—1 Jan.....	107	7 <sup>1</sup> / <sub>4</sub>	15	23	22	109	10 <sup>1</sup> / <sub>8</sub>	4 7 <sup>1</sup> / <sub>2</sub>	8 7 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>8</sub>		
59—1 ,, .....	107	7	13	22	20	124	12 <sup>1</sup> / <sub>8</sub>	5 4 <sup>1</sup> / <sub>2</sub>	9 7 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>4</sub>		
60—1 ,, .....	112	6 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	22	19	139	12 <sup>1</sup> / <sub>4</sub>	6 1 <sup>1</sup> / <sub>2</sub>	10 7 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>8</sub>		

DATES.	42	43	44	45	46	47	48
	Bank Note Circulation.			Rate of Interest.		Reserve of Bank of England.	
	Bank of England.	Country Banks, Gt. Britain.	Total.	Bank of England. Minn.	Lombard Street.	Total Bullion.	Banking Department.
	Mlns. £	Mlns. £	Mlns. £	P. cnt. p. ann.	P. cnt. p. ann.	Mlns. £	Mlns. £
45—'50, { Avge. six Yrs. }	20 '4	10 '3	30 '7	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	14 '4	8 '50
51—1 Jan.....	20 '3	9 '5	29 '8	3	2 <sup>3</sup> / <sub>4</sub>	14 '6	9 '0
53—1 July.....	24 '2	10 '5	34 '7	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub> -4	18 '0	8 '5
57—1 ,, .....	20 '5	10 '7	31 '2	5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub> - <sup>3</sup> / <sub>4</sub>	11 '6	6 '3
58—1 Jan.....	20 '6	9 '4	30 '0	6	4 -5	12 '6	7 '6
59—1 ,, .....	21 '7	10 '4	32 '0	2 <sup>1</sup> / <sub>2</sub>	2 -2 <sup>1</sup> / <sub>2</sub>	19 '1	12 '7
60—1 ,, .....	22 '6	11 '0	33 '6	2 <sup>1</sup> / <sub>2</sub>	,,	17 '0	10 '3



(B).—WHOLESALE PRICES, 1845-60.—PROPORTIONATE RESULTS *deduced from the preceding Table (A.) on the Basis of representing by the Number 100 the AVERAGE PRICES of the Six Years 1845-50.*

DATES.	Coffee, 1.	Sugar, 2-3.	Tea, 5.	Tobacco, 6.	Wheat, 8.	Butchers' Meat, 9-13.	Cotton Wool (at Lon- don,) 14.	Silk, Raw, 15.	Flax and Hemp, 16-17.	Sheeps' Wool, 18-20.	Indigo, 22.
'45-'50, { Avge. six Yrs. }	100	100	100	100	100	100	100	100	100	100	100
'51—1 Jan. ....	113	91	128	166	71	87	143	112	95	110	125
'53—1 July ....	110	80	128	111	85	108	118	118	110	120	162
'57—1 ,, ....	151	152	162	211	119	104	150	203	120	142	125
'58—1 Jan. ....	113	83	140	200	92	111	114	156	113	107	150
'59—1 ,, ....	130	85	119	166	77	109	104	138	113	127	111
'60—1 ,, ....	131	83	162	150	83	107	93	140	122	130	130

DATES.	Oils, 23-25.	Timber, 26-7.	Tallow, 28.	Leather, 29.	Copper, 33.	Iron, 34-5.	Lead, 36.	Tin, 38.	Cotton Wool, Upland, Good Ord. Fair at Mnch.	Cotton Yarn.	Cotton Cloth.	Total Note Cir- culation Great Britain.
'45-'50, { Avge. six Yrs. }	100	100	100	100	100	100	100	100	100	100	100	100
'51—1 Jan. ....	101	84	86	100	95	90	100	98	140	127	118	97
'53—1 July ....	130	107	111	100	121	105	140	114	110	105	107	113
'57—1 ,, ....	141	102	147	150	133	125	143	166	150	126	113	101
'58—1 Jan. ....	121	100	118	130	121	110	131	115	120	112	99	98
'59—1 ,, ....	118	91	116	116	121	100	125	145	120	124	112	104
'60—1 ,, ....	127	97	131	136	127	90	125	151	128	125	124	109

The construction of this Table (B) will be easily understood. For example—the Col. *Wheat*, represents the fluctuations in the Gazette price of Wheat, according to the actual prices given in (A), Col. 8. The price of *Wheat*, in 1845-50, is represented in (B) by 100—and the prices of the six subsequent dates by corresponding additions to or abatements from 100. Thus, at 1st July, '57, the 100 had become 119. To arrive at the *per centage* variation from year to year, it is obvious that the *differences* must be measured, not against 100, but against the number placed against the first of the years compared. Thus, the *fall* in the prices of Wheat between 1st July, '57, and 1st Jan., '58, was not 27 per cent.—but 22 per cent.—or the proportion borne by 119 to a fall of 27.

(C.)—IMPORTS.—(*Quantities*).—UNITED KINGDOM, 1845-59.—*Leading Articles of Consumption.*

[The 0,000's at unit end omitted—thus 5,82 = 5,820,000.]

Year.	Raw Sugar. ( <i>Imptd.</i> )	Tea. ( <i>Imptd.</i> )	Coffee. ( <i>Imptd.</i> )	Wine. ( <i>Imptd.</i> )	Tobacco. ( <i>Imptd.</i> )	Timber. ( <i>Imptd.</i> )	Oils.
	Cwts.	lbs.	lbs.	Gals.	lbs.	Loads.	Cwts. & tun.
1845.....	5,82	53,15	50,37	8,47	32,94	1,95	,58
'50.....	6,29	50,51	50,80	9,30	35,16	1,66	,58
1853.....	7,28	70,74	55,63	11,03	40,67	2,52	,84
1858.....	9,01	75,43	60,70	5,79	59,64	2,22	1,02
'59.....	9,10	75,08	65,35	8,19	48,70	2,62	,92

Year.	Hemp.	Hides.	Raw Silk.	Cotton Wool.	Sheeps' Wool.	Tallow.	Seeds:— Flax, Lin, and Rape.
	Cwts.	Cwts.	lbs.	lbs.	lbs.	Cwts.	Qrs.
1845.....	,93	,72	4,35	721,98	76,81	1,19	,70
'50.....	1,05	,61	4,94	663,57	74,32	1,24	,71
1853.....	1,24	,81	6,48	895,28	119,40	1,17	1,11
1858.....	1,62	,76	6,28	1,034,34	126,74	1,23	1,23
'59.....	2,15	,86	9,92	1,232,00	133,37	1,07	1,68

(D.)—RE-EXPORTS *of* FOREIGN *and* COLONIAL *Produce from* United Kingdom, 1845-59.

Year.	Sugar.	Tea.	Coffee.	Wine.	Tobacco.	Oils.	Raw Silk.	Cotton Wool.	Sheeps' Wool.
	Cwts.	lbs.	lbs.	Gals.	lbs.	Cwts.	lbs.	lbs.	lbs.
1845.....	,62	4,05	19,23	1,61	8,69	,07	,29	,38	2,61
'50.....	,37	5,01	12,17	1,74	7,25	,12	,56	,91	14,05
1853.....	,25	4,83	26,65	2,47	9,18	,20	,43	1,32	11,70
1858.....	,30	7,25	28,76	2,32	9,25	,28	2,31	1,33	26,59
'59.....	,21	6,42	29,58	2,13	11,16	,29	2,15	1,56	28,83



(E.)—GOLD and SILVER, 1851-59.—*Exports to INDIA, CHINA, EGYPT, from UNITED KINGDOM, and from the Ports of the MEDITERRANEAN according to Mr. Low's Circular of January, 1860.*

Years.	Gold.			Silver.		
	From Gt. Britain.	From Medtn. Ports.	Total.	From Gt. Britain.	From Medtn. Ports.	Total.
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1851 .....	,10	—	,10	1,72	—	1,72
'52 .....	,92	—	,92	2,63	—	2,63
'53 .....	,88	,09	,97	4,71	,85	5,56
1854 .....	1,17	,05	1,22	3,13	1,45	4,58
'55 .....	,95	,24	1,19	6,11	1,52	7,63
'56 .....	,41	,07	,48	12,12	1,99	14,11
1857 .....	,27	,26	,53	16,80	3,35	20,15
'58 .....	,17	,16	,33	4,78	,91	5,69
'59 .....	,76	,14	,90	14,68	1,52	16,20
Totals....	5,63	1,03	6,66	66,98	11,60	78,58
Average....	,63	,14	,74	7,44	1,66	8,73

The Export of  $16\frac{1}{4}$  Millions sterling of *Silver* in 1859 includes about  $6\frac{1}{4}$  Millions remitted to the Indian Government. Messrs. Pixley, Abell, and Langley, Bullion Brokers, apportion the Export of *Silver* from Great Britain in each of the Five Years 1855-9, as follows:—

Year.	India.	China.	Straits.	Total.
1855 .....	4,74	1,37	,31	6,43
'56 .....	8,38	3,16	,56	12,11
'57 .....	11,38	4,47	,87	16,73
'58 .....	3,30	1,35	,10	4,75
'59 .....	11,16	3,37	,29	14,82

(F.)—FOREIGN EXCHANGES, 1841-59.—ANNUAL AVERAGE RATES, *London on Paris, Hamburg, and Amsterdam.*—*Calcutta on London*—and *Price of Standard SILVER Bars in London.*

Years.	Paris. 3 m. dt.	Hamburg. 3 m. dt.	Amsterdam. 3 m. dt.	Calcutta on London. 6 m. st.	Standard Silver (bars), in London.
1841.....	25·65	13·9½	12·4	<i>d.</i> 23	per oz. 60
'42.....	·80	·11¼	·5	24	59½
'43.....	·85	·13¼	·5	23½	„ ¼
'44.....	·75	·11¼	·3¾	22	„ ½
'45.....	·92	·13½	·7¼	22¼	„ ½
	25·80	13·12	12·5	23	59½
1846.....	25·90	13·12½	12·7	23	59½
'47.....	·60	·12½	·4½	22¼	„ ½
'48.....	·90	·13	·3½	22½	„ ½
'49.....	·80	·13	·3¾	23	„ ¾
'50.....	·40	·11	·1½	24¾	60
	25·72	13·12¼	12·4	23⅓	59¾
1851.....	25·25	13·8	11·18	24½	61
'52.....	·50	·9½	12·0	24½	60¾
'53.....	·30	·7½	11·18½	25	61½
'54.....	·35	·6	·17	24½	„ ½
'55.....	·50	·8	·19	25½	„ ½
	25·38	13·8	11·18	25	61½
1856.....	25·70	13·9	12·0	26	61½
'57.....	·70	·9	12·0	„ ¼	„ ½
'58.....	·35	·7½	11·17½	25	„ ½
'59.....	·35	·5½	·16	24¾	„ ½
	25·52	13·8	11·18	25¼	61½



(G.)—PRICES OF GRAIN.—*England and Wales.—Calendar Year.—Averages of the Weekly Official Gazette Returns per Imperial Quarter.*

Years.	Wheat.		Barley.		Oats.		Rye.		Beans.		Peas.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1840 .....	66	4	36	5	25	7	37	—	43	5	42	4
'41 .....	64	3	32	10	22	5	36	9	39	10	40	3
'42 .....	57	3	27	6	19	3	33	—	32	5	32	11
'43 .....	50	—	29	5	18	3	30	5	29	1	31	—
'44 .....	51	3	33	7	20	7	33	11	34	5	33	4
	57	10	31	11	21	3	34	3	35	10	36	—
1845 .....	50	10	31	8	22	6	32	3	38	9	38	8
'46 .....	54	8	36	9	27	7	31	4	37	9	38	2
'47 .....	69	9	44	2	28	9	49	—	50	6	51	5
'48 .....	50	6	31	7	20	6	30	5	36	9	39	2
'49 .....	44	2	27	9	17	6	25	9	30	2	31	3
	54	—	34	5	23	4	33	9	38	9	39	9
1850 .....	40	3	23	5	16	5	23	3	26	10	27	2
'51 .....	38	6	24	9	18	7	25	8	28	7	27	2
'52 .....	39	9	28	—	18	7	28	5	31	9	30	2
'53 .....	52	11	32	11	21	—	35	4	40	5	38	9
'54 .....	72	5	36	—	27	11	45	9	47	3	45	7
	48	9	29	—	20	6	31	8	35	—	33	9
1855 .....	74	9	33	2	29	1	45	8	46	3	43	4
'56 .....	69	2	41	1	25	2	44	11	43	11	41	7
'57 .....	55	10	42	3	25	1	38	5	42	10	41	3
'58 .....	44	3	34	8	24	3	32	3	41	11	42	11
'59 .....	43	9	33	6	23	2	32	4	42	3	39	8
	57	8	36	11	25	5	38	9	43	6	41	10

It is important to observe from the figures of this table, that comparing the average of the first ten years, 1840-9, with the average of the last five years, 1855-9, while the rise in price is but trifling as regards *Wheat*, it is marked as regards the inferior kinds of grain—*Oats*, *Rye*, *Peas*, and *Beans*. The comparison stands thus:—

Years.	Wheat.		Barley.		Oats.		Rye.		Beans.		Peas.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1840-9.....	56	—	33	2	22	3	34	—	37	4	37	10
1855-9.....	57	8	36	11	25	5	38	9	43	6	41	10
<i>Increase, } pr. cent.</i>	2½		10		16		16		17		12	

The increase, therefore, in the Inferior grain has been about six times greater than the increase on *Wheat*—the disparity arising from successive failures in the crops of inferior grain, and this increase of price has affected largely the prices of Butchers' Meat.

## MISCELLANEA.

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I.—*Finance and Currency of Turkey.*

THE following is the official announcement made in January, 1860, by the Turkish Government on the subject of the withdrawal of the depreciated Paper Currency:—

“In the month of May, 1859, an official notification was made that a loan had been contracted for 5,000,000*l.* sterling, for the withdrawal of the whole *Paper Money*, and since then detailed particulars have been published, showing that this loan has produced altogether 547,925,000 piastres, to which extent paper money has been and is being withdrawn. The total amount of paper money issued by the Treasury is 618,979,000 piastres; therefore, the balance to be withdrawn is 71,054,000 piastres, or about 520,000*l.* sterling, and measures have been taken to do this by March, 1860. Arrangements have also been concluded with responsible parties, so that immediately on withdrawal of this balance the value of the *gold medjidié* shall be kept steady at 100 piastres, and the pound sterling at 110 piastres. Besides this, the Government has authorized the establishment of a National Bank, based upon the system of other European banks, the conditions and privileges of which have already been published. The fluctuations in the exchanges, owing to the paper money, has seriously interfered with the business of Constantinople, at which place alone this paper money has been in circulation, and it has been considered better that a personal sacrifice should at once be made to get rid of this evil. The Government has, therefore, resolved to organize upon the most equitable footing a general assessment, to which all the inhabitants are called upon to contribute. This assessment will be levied proportionately, and the poorer classes will be exempt. The measure has already received the sanction of His Imperial Majesty the Sultan, and full particulars will be published stating the manner in which the assessment will be made.”

In connection with this subject, the following extracts are given from Mr. Nassau Senior's recent work, *A Journal kept in Turkey and Greece*, in 1857-8.

“*Constantinople, Sunday, Oct. 18, 1857.*—I had a long conversation at breakfast with R. S. and his younger brother, a merchant in Galata, on the state of the Turkish money and finances. The *Gold Piece* is worth nine-tenths of an English sovereign, or 18*s.* It is divisible into 100 piastres, so that 110 piastres make 1*l.*, and 1,000,000 piastres make 90,000*l.* But a large amount of paper piastres has been issued not convertible, the value of which fluctuates, but with a constant tendency to fall. It is supposed that about 260,000,000, representing 2,340,000*l.*, have been issued; and that, according to the needs of the treasury, or of the Sultan, further issues have been made, and will be made, from time to time. To-day the 1*l.* is worth 150 piastres.

“There is also a base coin called beshlics, of which 400,000,000 have been issued, of the real value of 2,000,000.

“The first thing to be done is to withdraw from circulation the *paper* and the *beshlics*, at an expense amounting together to 460,000,000, or about 4,140,000*l.*



"The revenue of the State is supposed to amount to 9,000,000*l.* sterling. From this the Sultan takes what he likes—he is supposed to take about 2,500,000*l.* This, however, does not pay his expenses. He has contracted a debt of about 800,000,000 piastres, or 7,200,000*l.*, for which he has given promissory notes, some with interest, some without.

"The treasury also is supposed to owe to Government contractors, and to other persons with whom it has dealings, about 400,000,000 piastres, or about 3,600,000*l.*

"The floating debts, therefore, of the State, and of the Sultan, including the expense of calling in and redeeming the paper and base money, amount to 1,660,000,000 piastres, or about 14,940,000*l.* sterling. Constituted thus:—

	£
Paper and base money .....	4,140,000
Sultan's debt .....	7,200,000
Government floating debt .....	3,600,000
	<hr/>
Total .....	14,940,000
	<hr/>

"But in the present daily depreciation of the paper piastres, and the doubtfulness of the real value of the floating debt, it is supposed that the whole 14,940,000*l.* could be bought up for 10,000,000*l.* sterling.\*

"For this purpose it is proposed to borrow 10,000,000*l.*, which it is supposed could be obtained at 6 per cent., payable in gold.

"Were this sum raised and honestly applied, the Government would have a sound undepreciated currency, no floating debt, and a funded debt of only 18,000,000*l.*, the present funded debt being 8,000,000*l.*

"The practical difficulty is, how to raise a fund for payment of the interest.

"The proposal is to lay an excise duty upon tobacco.

"The present consumption is estimated at 500,000 lbs a day, or 182,000,000 lbs. a year, about 7 lbs. per head on the whole population per year, worth about eighteen pence a pound.

"A duty of a penny a pound would produce 765,416*l.*; a duty, therefore, of twopence a pound, or twenty-five per cent., would produce 1,530,832*l.*—a sum sufficient to pay all expenses of collection, to leave a large margin for loss, and yet to pay the interest and extinguish the debt in less than twenty years.

## II.—*Indian Finance, 1860-61.*

IN the *Times* of 17th January, 1860, the following statement appeared.

"The transactions in Indian securities continue on a large scale, and the financial reports by each mail, instead of being unheeded, as in former years, attract more attention than the advices from any other country. The public, however, have not yet acquired that familiarity with the topic which would enable them to understand without reference or explanation the various details referred to in the successive telegrams, and a short outline of the movements of the past year will be of service.

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\* *Athens, Nov. 26, 1857.*—I received a letter from R. S. to-day, in which he says:—"The Sultan, like most distressed people, has underrated his debts. We now find that they amount to 10,000,000*l.* instead of 7,000,000*l.* Of this sum, spent, or supposed to have been spent, in about three years, one-third, at the very outside, represents value received—all the rest is robbery." To carry out the scheme of redemption mentioned above will require, therefore, a loan of 14,000,000*l.* instead of 10,000,000*l.*"

“At the commencement of 1859 the Government of India was urged by the mercantile community to publish some definite statement, analogous to the Home Budget, of its probable requirements for the coming year—namely, from May, 1859, to May, 1860. Accordingly, by a special *Gazette* dated the 21st of February, 1859, notice was given that a  $5\frac{1}{2}$  per cent. Loan would be opened, payable half in Cash and half in 5 per cent. Paper, and that the then open 5 per cent. loan, payable half in Cash and half in 4 per cent. paper, would be closed; that the issue of Treasury or Exchequer Bills bearing  $4\frac{3}{4}$  per cent. per annum would be continued; and that the amount of money to be raised by loan in the Indian markets for the period in question was 5 crores of rupees, 5,000,000*l.* sterling. When this was obtained the  $5\frac{1}{2}$  per cent. Loan would be closed, but it was mentioned that the sum to be received for Exchequer Bills was not counted as part of the 5,000,000*l.* In the autumn of 1859 the financial position improved so much that the Government, under date the 30th September ('59), addressed a despatch to Sir Charles Wood, in which, after giving a statement of ways and means for 1859-60 and 1860-61, they countermanded a remittance of Silver of 1,250,000*l.* that had been promised from England. In that despatch their revised estimate of cash to be raised by loans in India for 1859-60 is as follows:—

	£
From 5 per cent. loan, cash .....	300,000
„ $5\frac{1}{2}$ „ „ .....	2,500,000
„ Exchequer Bills „ .....	400,000
	<hr/>
	3,200,000
	<hr/>

“This statement materially differs from that of February ('59), as the total requirement is made less by 1,800,000*l.*, and the amount to be raised by Exchequer Bills, is, for the first time, brought into the account. The Government estimate an issue of these Bills in 1859-60 of 2,500,000*l.*, of which they calculate on repaying 2,100,000*l.*, as the holders have the option of claiming the amount in twelve or three months. But there are symptoms that the result will be yet more satisfactory, and that this new security will greatly facilitate all future arrangements. The general opinion in India is described to be much in its favour. From the first it was believed that the Government would both issue and keep afloat a far larger amount than they had assumed to be probable, and experience has strengthened that impression. The bills carry interest daily at a rate equal to  $4\frac{3}{4}$  per cent., and when they have been out twelve months they are receiveable in payment of Customs and all other revenue duties. But the Government were naturally so uncertain as to the success of the experiment that in the estimate of February last no results from it were taken into account. On the recommendation of the Chambers of Commerce, they now publish in the Calcutta official “*Gazette*” a quarterly statement of the sums paid into the open loans. On the 9th November ('59), the figures were given for the first two quarters of the current year—namely, from the 1st of May to the 31st of October, and the totals were as follows:—

	£
Cash paid into $5\frac{1}{2}$ per cent. loan .....	1,321,000
For Exchequer Bills .....	2,099,000
	<hr/>
	3,420,000
	<hr/>

“The return is defective in an important particular, since it does not state the amount of Exchequer Bills that had been repaid, but it shows that whereas the estimate of the 30th September puts down 2,800,000*l.* as the sum to be raised from the ordinary loan in the year, nearly half had been received in six months, when the prospects of Indian finance were considered discouraging, and that the new security in the shape of Exchequer or Treasury Bills had become so popular that nearly 2,100,000*l.* had been issued in half a year, against an estimated issue of 2,500,000*l.*



in the whole year. The impression is, moreover, that a large amount of this issue is found to float, and will continue to float. The Government, in their September despatch, estimated it at only 400,000*l.*, but the Bank of Bengal alone holds 500,000*l.*, as shown by its last published return. Finally, it is to be remarked that the latest Calcutta journals, as well as the commercial letters, mention that since the publication of the "Gazette" statement large amounts of cash and 5 per cent. paper were being paid in for the  $5\frac{1}{2}$  per cent. loan, and that it was consequently expected to be shortly closed. This consummation, which will perhaps be hastened by the increased Customs' duties on the great importation of cotton goods, &c., is desirable, since the terms are bad for the Government,—one-half being receivable in 5 per cent. paper, which was at 10 per cent. discount, and the principal not being redeemable until 1879."

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### III.—*Russian Financial Difficulties.*

THE *Times* of the 10th February, 1860, contained the following statement:—

"St. Petersburg accounts state that the financial position of Russia continues to be a subject of much anxiety, and that the question is whether the means of relief are to be found in a Loan or by some other method. The result of the conversion of Bank bills into 5 per cent. stock has been the withdrawal of about 42,000,000*l.* of these bills from circulation, and the run for money consequent upon the reduction of interest from 3 per cent. to 2 has obliged the Bank to pay off an additional 22,000,000*l.*, making a total of about 64,000,000*l.* converted or cancelled out of the 125,000,000*l.* originally in the hands of the public. Of the balance now outstanding it is estimated that a large proportion belongs to the Agricultural classes, and others who are not likely to ask for payment; but, looking at the quantity for which provision may still have to be made, and the existing excess of the ordinary note circulation, the fact is admitted that a heavy amount will be required to restore the currency from the serious discount at which it has so long stood. That a Loan will be raised if the money-markets of London and Paris are found to admit of such an operation is not doubted, but the recent depression that has prevailed here from the drain of bullion to India has tended, among the commercial classes at St. Petersburg, to check any sanguine feeling on that point."

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### IV.—*Agricultural Labour and Property in Norway, 1859.*

THE following statement occurs in a Work recently published, entitled *Through Norway with a Knapsack*, by Mr. Williams.

"The relation of these *Housemen*, or farm-labourers, in Norway, to the *Bonder*, or freehold peasant farmer, is peculiar and interesting. They hold cottages and patches of land, generally sufficient to support two cows and some sheep, and to grow sufficient rye, barley, or oats for the consumption of the family. These sub-farms, as they may be called, are usually situated on the skirts of the bonder's farm, and are held under him at a fixed rent for a term of two lives—that of the houseman and his widow. The Houseman is under an obligation of furnishing a certain number of days' work on the bonder's farm, at a fixed rate of wages—usually about threepence or fourpence per day, with victuals. The houseman can give up his land and remove, on giving six months' notice, and in such case is entitled to the value of house, buildings, &c., he has erected at his own expense; but the landlord cannot remove him, or his widow, so long as the stipulated services are rendered and the rent paid. The unmarried sons and daughters of the

houseman are usually employed as day labourers on the main farm or that of their parents. The eldest son of a houseman commonly succeeds his father by a sort of customary inheritance, which in some districts is so usual as to amount to a sort of tenant-right. A labourer is not considered in a condition to marry respectably until he has obtained a Houseman's situation and allotment; and the pastor of the parish commonly refuses to marry a couple that is not thus provided. As the supply of labour is fully up to the demand, and a vacancy for a houseman but seldom occurs, a considerable check is thus put upon early marriages; but at the same time a great amount of illegitimacy is also consequent. By Norwegian law illegitimate children become legitimate by the subsequent marriage of their parents. The farms of the *Bonders* seldom change hands; they pass from father to son through many generations, and are usually not more than large enough to provide for the wants of the family. It is but rarely that one can distinguish the bonder from his housemen by any difference of dress or manner. They usually take their meals together, and live on terms of apparent equality. The exceptions that I have seen to this were chiefly in the large farms of the *Gulbrandsdal*, and in the neighbourhood of *Trondlyem*, where there are thirty or forty labourers on one farm, and who are called to their meals by the tolling of a bell, hung for the purpose in a little belfry on the roof of the main building. In the winter time a greater degree of separation and inequality doubtless exists; for that is the great junketing period in Norway, especially in the extreme north, where Yule-time is a long term of continual darkness. Then the farmers pay long visits to their neighbours, half-a-dozen families stopping at one farm; and the host and his family, joining their guests, start in procession over the snow to the house of one of his visitors, then to another, and so on till the round is completed, and each has been a host and guest to all in turn. Dancing is the favourite amusement at these gatherings, and the polka, or 'polsk,' as they call it, the favourite dance. It was one of the common dances of Norway long before its introduction into England. I have heard some very animated accounts of these merry-makings, the remembrance of which evidently lasts through the summer; and if I may judge by the blushes and laughter that have replied to my inquiries, there is quite as much lovemaking at these "Yulekiks" as at the salters in summer time.

"I have already alluded to the length of time that some of these bonder estates continue in one family. Mr. Laing quotes some interesting instances of this. *Kroff Blakar*, of *Blakar*, in *Lom* parish, 'preserves a headpiece or helmet complete, with an opening only for the eyes, and parts of a coat of mail, a long sword, and other articles of his ancestors; and a writing of King *Hakon Magnussen* the younger, who lodged a night in *Blakar Gaard*, in the fourteenth year of his reign, anno 1364. In many instances the title-deeds by which the existing families hold their property are written in a dead language, the old *Norsk* or *Icelandic*.

"Many of the relations of *Rolf Ganger*, the conqueror of *Normandy*, and the ancestor of our Norman line of kings, are still represented by their descendants, who are peasant proprietors in *Norway* and *Iceland*. If the royal families of *Europe* and our aristocratic families, whose ancestors 'came over with the Conqueror,' could trace their lineage far enough, they would find the farms of their ancestors among the 'gaards' of *Norway*, with nearly the same boundaries as they had a thousand years ago; and in many instances the present *Bonder* would be the direct descendant of the elder son of the common ancestor, while the prince or nobleman would have descended from a younger son: for then, as now, when the farms were too small for subdivision, the elder sons inherited them intact, while the younger went to seek their fortunes on the seas and in distant lands. Then they manned the vessels of the terrible sea-kings, and settled on the shores of *England*, *Scotland*, *France*, *Spain*, *Portugal*, and even of the *Mediterranean*; besides colonizing *Greenland* and the shores of the unknown Western world, which they called *Vinland*. Now they help to man the ships of the *British* and *American* navy and merchant service; and are among the most successful agricultural emigrants to that New World which their ancestors discovered."



V.—*London Joint Stock Banks, 1849-54-59.*

The Half-Yearly Meetings to 31st December, '59, of the several Joint Stock Banks in London being now completed, the subjoined table has been made up, exhibiting their respective capitals and extent of transactions, as well as the periods at which they were severally opened. The table shows the Capitals and Liabilities, in the latter of which there is little variation from the returns of last year, the difference being only an increase of 271,848*l.*, or less than three-quarters per cent. The totals of the London and Westminster and Union of London show a moderate decrease, but in those of all the others there has been an increase. The Western of London, which in last year's return figured for 278,951*l.*, has since ceased to exist, the bulk of its business having been transferred to the London and County. The table also specifies the amount of each Guarantee fund, the ratio of capital and guarantee fund to liabilities, and the rate of distribution just declared, that of the London and Westminster, which in 1858 was 18 per cent., being now 20, while that of the London Joint Stock has been lowered from the exceptional amount of 32½ to 23½. The Commercial and City Banks, which paid 5 per cent. last year, have gone up respectively to 7 and 6 per cent.

*Joint Stock Banks of London, 1849-54 and 59.*

Founded	Paid-up Capital in 1859.	BANK.  [000's at unit end omitted.]	Current and Deposit Accounts.			Gua- rantee and Reserve Fund.	Pro- portion of Capital and Gua- rantee to Deposits.	Dividend and Bonus to Pro- prietor
			Year.	Amount.	In- crease.			
				£	Pr. ct.	£	Pr. ct.	Pr. ct. pr. ann.
1834	1,000,	London and Westminster	1849	3,680,	—	108,	—	6
		"	54	7,177,	95	134,	16	14
		"	59	11,115,	55	200,	10	18
1836	600,	London Joint Stock .....	1849	2,792,	—	132,	—	9½
		"	54	6,161,	120	156,	12	25
		"	59	9,556,	55	229,	9	18
1839	720,	Union Bank of London ....	1849	2,835,	—	50,	—	6
		"	54	7,031,	148	50,	11	15
		"	59	9,318,	33	95,	9	15
1839	500,	London and County .....	1849	1,675,	—	28,	—	6
		"	54	3,779,	126	62,	15	12
		"	59	4,975,	32	105,	12	11
1839	300,	Commercial Bk. of London	1849	,541,	—	17,	—	6
		"	54	1,265,	134	64,	29	10
		"	59	,926,	—	75,	40	7
		TOTALS OF THE ABOVE	1849	11,523,	—	335,	—	6¾
		"	54	25,413,	120	466,	14	15½
		"	59	35,890,	41	704,	11	13½
1855	300,	City Bank .....	1859	2,223,	—	33,	15	6
1855	300,	Bank of London .....	59	1,599,	—	12,	19	5
1855	179,	Unity .....	59	,140,	—	—	77	—

## ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN

OF THE

MARRIAGES IN ENGLAND AND WALES DURING THE THIRD QUARTER  
(JULY—SEPTEMBER), AND OF THE BIRTHS AND DEATHS DURING  
THE FOURTH QUARTER (OCTOBER—DECEMBER), OF 1859.

THIS Return comprises the BIRTHS and DEATHS registered by 2,197 Registrars in all the districts of England during the Autumn Quarter that ended on December 31st, 1859; and the MARRIAGES in 12,387 churches or chapels, about 4,195 registered places of worship unconnected with the Established Church, and 631 Superintendent Registrars' offices, in the quarter that ended on September 30th, 1859.

The last Quarterly Return of 1859 presents satisfactory results. The country has recovered from the depression of 1858. The *marriage rate*, which had been low in the two previous years, approached the average. A great number of children in excess of the average were born; and, notwithstanding the severe Weather, the Mortality was nearly at the usual rate in the last quarter of the year.

The accounts of the *Year 1859* are now made up, and they show in satisfactory contrast an *increase* in the *birth-rate*, a *decrease* in the *death-rate* of England and Wales.

MARRIAGES.—79,852 persons married in the Summer quarter that ended on September 30th, and the marriage-rate was 1·602. This is a great increase on the numbers marrying in the corresponding quarter of the previous year, when the marriage-rate was 1·568. The average marriage-rate of the season is 1·623.

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, *returned in the Years 1853-59, and in the QUARTERS of those Years.*

*Calendar YEARS, 1853-59 :—Numbers.*

Years .....	'59.	'58.	'57.	'56.	'55.	'54.	'53.
Marriages No.	—	156,297	159,097	159,337	152,113	159,727	164,520
<i>Births</i> ..... „	689,558	655,627	663,071	657,453	635,043	634,405	612,391
<i>Deaths</i> ..... „	441,249	450,018	419,815	390,506	425,703	437,905	421,097

*QUARTERS of each Calendar Year 1853-59.*

(I.) MARRIAGES :—*Numbers.*

<i>Qrs. ended last day of</i>	'59.	'58.	'57.	'56.	'55.	'54.	'53.
March .....No.	35,429	30,934	33,321	33,427	29,186	33,234	35,149
June ..... „	42,045	39,909	41,267	38,820	38,549	40,518	40,446
Septmbr. .... „	39,926	38,628	38,669	39,089	37,308	38,182	39,899
Decmbr. .... „	—	47,726	45,840	48,001	47,070	47,793	49,026



## QUARTERS of each Calendar Year, 1853-59.

## (II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'59.	'58.	'57.	'56.	'55.	'54.	'53.
March .....No.	175,429	171,001	170,430	169,250	166,225	160,785	161,729
June ..... „	175,727	169,170	170,444	173,263	165,277	172,457	158,697
Septmbr. .... „	168,311	157,449	161,181	157,462	154,700	154,724	147,602
Decmbr. .... „	170,091	158,007	161,016	157,478	148,841	146,439	144,363

## (III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'59.	'58.	'57.	'56.	'55.	'54.	'53.
March .....No.	121,682	125,902	108,665	103,014	134,542	111,843	118,119
June ..... „	105,778	107,193	100,046	100,099	106,493	102,586	107,647
Septmbr. .... „	104,339	98,260	100,528	91,155	87,646	113,843	92,201
Decmbr. .... „	109,450	118,663	110,576	96,238	97,022	109,633	103,130

BIRTHS.—The births of 170,091 children were registered in the quarter that ended on December 31st. The number is 12,084 in excess of the number registered in the corresponding quarter of the previous year. The birth-rate was 3·402; it is the highest on record. The average of the season is 3·197.

689,558 children were registered in the year, or 1,889 daily.

INCREASE OF POPULATION.—The Births exceeded the Deaths by 60,641, and that was therefore nearly the natural increase of the population in 92 days. Thus the population of *England and Wales* increased at the rate of 659 daily; and the probable natural increase of the population of the *United Kingdom* was 988 daily.

In the year the excess of births over deaths was 248,309, or 680 daily in England and Wales; in the United Kingdom the natural increase must have exceeded 1,000 daily.

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1853-59, and the QUARTERS of those Years.*

*Calendar YEARS, 1853-59:—General Percentage Results.*

YEARS .....	'59.	Mean '49-'58.	'58.	'57.	'56.	'55.	'54.	'53.
Estmtd. Popln. of England in thousands in middle of Year.....	19,745	....	19,523,	19,305,	19,045,	18,787,	18,619,	18,403,
Persons Mar-ried Per ct. }	—	1·684	1·602	1·648	1·674	1·620	1·716	1·788
Births .... „	3·492	3·385	3·358	3·435	3·452	3·380	3·407	3·328
Deaths.... „	2·231	2·246	2·305	2·175	2·050	2·266	2·352	2·288

## QUARTERS of each Calendar Year, 1853-59.

## (I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'59.	Mean '49-'58.	'58.	'57.	'56.	'55.	'54.	'53.
March....Per ct.	1·462	1·403	1·254	1·408	1·416	1·266	1·456	1·556
June..... „	1·712	1·698	1·642	1·714	1·638	1·648	1·750	1·766
Septmbr. „	1·602	1·623	1·568	1·592	1·626	1·574	1·626	1·718
Decmbr. „	—	1·996	1·932	1·876	1·990	1·978	2·030	2·106

## (II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'59.	Mean '49-'58.	'58.	'57.	'56.	'55.	'54.	'53.
March....Per ct.	3·621	3·550	3·568	3·600	3·585	3·603	3·520	3·578
June .... „	3·577	3·553	3·482	3·548	3·656	3·534	3·722	3·464
Septmbr. „	3·377	3·246	3·195	3·308	3·275	3·261	3·294	3·177
Decmbr. „	—	3·197	3·198	3·295	3·264	3·128	3·111	3·100

## (III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'59.	Mean '49-'58.	'58.	'57.	'56.	'55.	'54.	'53.
March....Per ct.	2·512	2·455	2·627	2·295	2·182	2·916	2·449	2·613
June..... „	2·153	2·214	2·206	2·083	2·112	2·277	2·214	2·355
Septmbr. „	2·093	2·138	1·994	2·063	1·896	1·848	2·423	1·985
Decmbr. „	2·189	2·183	2·402	2·263	1·995	2·039	2·329	2·214

24,118 Emigrants sailed from the ports of the United Kingdom at which there are Government emigration officers, and about 9,894 of them were of English origin. During the year 120,432 emigrants sailed from our shores, of whom about 40,245 were English, 12,077 Scotch, 62,841 Irish, and 5,269 were foreigners.\*

PRICES, THE WEATHER, AND PAUPERISM.—The *prices of food*, the weather, and the state of employment influence, to a certain extent, the births, deaths, and marriages of the population.

*Wheat* was sold at the average rate of 43s. 4d. a quarter during the last thirteen weeks of the year 1859; in the corresponding weeks of 1857 and 1858 the price was 52s. and 41s. 9d. The price of this great article of food fluctuated little, and has been moderate during the last two years. The average price of *beef* by the

\* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 7,536, while the birthplace of 5,748 was not distinguished; in the above statement a proportional number of these have been added to those returned as of English origin.



carcase at Leadenhall and Newgate markets was  $5\frac{1}{4}d.$ , of mutton  $5\frac{3}{4}d.$  a pound. The price of meat fluctuates less than the price of bread; but taking the mean of the two articles, the price has followed the same course as the price of wheat. So the price of potatoes, which fluctuates largely, and has an evident effect on the public health, was 140s., 87s. 6d., and 102s. 6d. a ton in the last thirteen weeks of the three years 1857, 1858, and 1859.

The *Meteorology* of the season was remarkable for its excesses of heat and cold. Very severe weather set in on October 21st; it was followed by a warm week

*The Average Prices of CONSOLS, of WHEAT, MEAT, and POTATOES; also the Average Number of Paupers relieved on the last day of each Week; and the Mean Temperature, in each of the nine QUARTERS ended December 31st, 1859.*

1	2	3	4	5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.	In-door.	
1857	£	s. d.	d. d. d.	d. d. d.	s. s. s.			
31 Dec.	89½	52 0	4¼—6½ 5⅜	4½—7 5¾	130—150 140	122,942	736,814	47°·9
1858								
31 Mar.	96⅛	46 5	4¼—6¼ 5¼	4¾—7 5⅞	130—175 152	138,376	835,641	37·8
30 June	97⅛	44 1	4¼—6 5⅛	4½—6½ 5½	140—185 162	119,234	752,278	54·3
30 Sept.	96⅔	44 7	4¼—6¼ 5¼	4½—6½ 5½	65—90 77	107,197	705,301	61·0
31 Dec.	98¼	41 9	4—6½ 5¼	4¼—6¾ 5½	80—95 87	115,751	710,904	43·8
1859								
31 Mar.	95⅝	40 8	4¾—6¾ 5¾	4¾—7 5⅞	80—100 90	122,854	742,964	43·3
30 June	92⅞	47 3	4¾—6½ 5⅝	5—7 6	85—110 97	109,150	710,410	53·7
30 Sept.	95⅜	44 0	4¼—6¼ 5¼	4¾—6¾ 5¾	65—105 85	100,582	682,867	62·8
31 Dec.	96⅛	43 4	4—6½ 5¼	4¾—6¾ 5¾	85—120 102	109,429	683,962	43·3

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The average of the highest and of the lowest prices is here shown in cols. 4, 5, and 6, and not the absolute highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns relate to 644 Unions, &c., comprising a population of 17,652,540 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1858, to—Insane Persons, 19,487; Vagrants, 2,265. The rest of the paupers on that day amounted to 880,280.

(November 1st-8th); then the cold weather returned, and became intense, the temperature falling all over the country below the freezing point of water ( $32^{\circ}$ ), and in many places descending below  $10^{\circ}$ . At Norwich the low point of  $1^{\circ}$  was observed; at Holkham  $3.8^{\circ}$ ; at Lampeter  $2^{\circ}$  below zero. The weather after December 23rd, became again unusually warm until the end of the year. The rain-fall was 8.7 in.; or 1.6 in. above the average of the season. Nearly 26 in. of rain fell in the year; or half an inch in excess of the average. In the four previous years the rain-fall was deficient.

*Pauperism* has gradually declined; the average number of paupers in receipt of relief during the last thirteen weeks of 1857-8-9, were respectively 859,756, 826,655, and 793,391.

STATE OF THE PUBLIC HEALTH.—109,450 deaths were registered in the last quarter of the year 1859, and the mortality was at the rate of 2.189 per cent. per annum. This is slightly above the average rate (2.183); but is much below the rates in the corresponding quarters of the two previous years (2.263) and (2.402).

In the last year 441,249 deaths were registered; and the mortality was at the rate of 2.231 per cent.; or rather more than  $22\frac{1}{3}$  died out of 1,000 living.

By a careful induction, drawn from an extensive series of observations on various portions of the population, it appears that the Deaths should not have exceeded 322,616 in the year, at what may be provisionally called the natural rate, actually prevailing in sixty-three districts of the country. The 118,633 deaths in excess of this number were, therefore, unnatural deaths.

If we divide the population into two nearly equal parts, the *Town* population, it is found, died at the rate of nearly 25 in 1,000; the *Country* population at the rate of 19 in 1,000 on an average during ten previous autumn quarters. In the last Quarter the mortality of the *towns* was between *one* and *two* in 1,000 below the average. This reduction may be fairly referred to the full employment of the people in the manufacturing districts, and to the partial sanitary improvements which have been made in several large towns. That is not the effect of the weather, or of any universal cause, is proved by the fact that in the country and small town districts the mortality rose from the average of 19 to 20 deaths out of 1,000 living.

The diseases of the *Lungs* were unusually fatal, in consequence of the severity of the weather; and the new form of throat disease (diphtheria) has caused much sickness, and in some places has destroyed many lives.

*Fever* has also been unusually prevalent in certain districts. Pathologists now distinguish three kinds of fever which have been hitherto confounded together; and are still apparently undistinguished by a certain number of medical practitioners. The typhoid fever, or *typhia*, as it may be called to distinguish it from typhus, Dr. Southwood Smith, Dr. Murchison, and others, have shown is a kind of night-soil fever. It was the cause of many deaths in families during the quarter. Thus in the sub-district of Lyncombe, near Bath, the Registrar reports five cases of typhoid fever at Oldfield Cottage; three had terminated fatally, and another death was hourly expected. The deceased young ladies, aged 19, 18, and 15, were the daughters of a lieutenant-colonel, who expressed his conviction that imperfect drainage was the cause of his most distressing loss. This fever has prevailed at Bedford; rich and poor have been affected. Twenty-six deaths from it have happened in the town during the last three months. People are suddenly attacked with considerable irritability of the bowels; tenderness of the right iliac region, gurgling of the bowels, the eruption of rose-coloured spots, delirium, and sometimes perforation of the intestines follow. Relapses are frequent. Foul cesspools are numerous in the town, and the drainage is very defective. The soil is mostly gravelly, porous, and affected by soakage. Water contamination is frequent. A wheelwright's wife aged 37, died of the fever on October 31st; a labourer's wife, aged 25, on November 16th; a dairyman's son, aged 23, on December 7th; a physician's daughter, aged 20, on December 15th; a captain's daughter, aged 18, on December 18th; a dealer's son, aged 23, on December 21st; and the curate, aged 24, died of the same low fever, with hæmorrhage, on



December 28th. These tragical losses would undoubtedly be less frequent, nay would not be sustained, if the earth, air, and water of the town were effectively purified. More than 50 cases of the fever occurred in the small village of Hartfield (East Grinstead, Sussex), where the drainage has been much neglected, and the sanitary arrangements of the houses generally are bad. The fever has been very prevalent at Newport, and its neighbourhood, in the Isle of Wight; it destroyed 13 lives. At Lemsford, in the Hatfield district, on the banks of the Lea, several persons were attacked, and two died. When this disease enters a house it generally attacks several members of the same family. The Registrars cite instances. The introduction of the disease can sometimes be traced; thus, a woman went to Yarmouth to nurse her daughter, who died, and was brought to Billington to be buried. Afterwards the mother, a daughter, aged 24 years, and a son, aged 14 years, died of the same fever. Two more members of the same family were attacked, but are now better. The house stands apart, and the disease has not extended to any other family. Portland is crowded by men employed in the Government works; and yet patients suffering from small-pox, measles, or typhoid

*DEATHS in the Autumn Quarters, ended December 31st, 1852-59.—Numbers.*

DEATHS, &c.	1859.	Total 1849-58, (10 Years.)	1858.	1857.	1856.	1855.	1854.	1853.	1852.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i> .....	57,427	550,623	65,657	60,132	52,086	51,985	59,660	57,635	52,711
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and <i>Country Parishes</i> ...	52,023	472,923	53,006	50,444	44,152	45,037	49,973	45,495	47,059
All England .....	109,450	1,023,546	118,663	110,576	96,238	97,022	109,633	103,130	99,770

*AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Autumn Quarters, ended December 31st, 1849-59.*

GROUPS.	Area in Statute Acres.  (England.)	Population Enumerated. (England.)		Deaths in 10 Autumn Quarters, 1849-58.	Average Annual Rate of Mortality per Cent. of 10 Autumn Quarters, 1849-58.	Annual Rate of Mortality per Cent. in the Autumn Quarter 1859.
		June 6-7th, 1841.	March 31st, 1851.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i> .....	No. 2,149,800	No. 6,838,069	No. 8,247,017	No. 550,623	Per ct. 2·510	Per ct. 2·359
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i> .....	35,175,115	9,076,079	9,680,592	472,923	1·913	2·028
All England .....	37,324,915	15,914,148	17,927,609	1,023,546	2·183	2·189

fever are, the Registrar complains, distributed in private lodgings, among the inhabitants; he has registered one death by fever. Other illustrations of the fatal prevalence of typhoid fever will be found in the Registrar's notes.

Cholera and diarrhœa have proved fatal in the Pontefract sub-district. In Glass Houghton, a township of about 200 inhabitants, 12 deaths were registered in seventeen days (Oct. 1st-17th); they all died of cholera and diarrhœa. The dwellings in which the disease raged were badly ventilated, and in a low damp locality. Of the same diseases 15 persons died in Castleford and Whitwood. The people had been allowed to deposit dung and other offal near a well which supplied the streets to which the disease was mainly confined; and the heavy rains had washed the dirt into the water.

The returns afford evidence of the efficacy of Sanitary measures. Thus the fever which had prevailed some time in the camp at Colchester, continued during October and November. An inquiry was instituted; sanitary measures were probably adopted, and no death from fever occurred in camp or town during December, which was unusually healthy. The great diminution in the mortality of Bristol is ascribed in part to the comparative prosperity of the working classes, but still more distinctly to the improvements which have been made in the drainage, and in the sanitary arrangements of the city. The Registrar of Walsall accounts for the decrease of deaths by sanitary regulations.

The increase of births, and the decrease of deaths, in Wilton, the Registrar states is, in his opinion, attributable to the introduction of a new and superior class of Cottages, in lieu of the former ill-built and badly-ventilated dwellings of the agricultural labourers. The numerous new cottages, which are being built in several parishes of that sub-district, "by the direction of Mr. Sidney Herbert," will no doubt improve the health of the inhabitants.

The improvement of the health of the labouring population of the kingdom is one of the most pregnant measures of defence that can be conceived; and will not be overlooked by the great landed proprietors.

At the instance of the Lords of Her Majesty's Privy Council, the Registrars have returned the causes of many deaths in their several districts. The printed Notes contain many interesting facts; the whole of the MS. Notes have been placed in the hands of Mr. Simon, their Health Officer, as they suggest important inquiries.

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*Note.*—The Numbers of Births and Deaths in this Return are furnished by the Registrars at the end of the Quarter, and have not yet been subjected to revision at the General Register Office; they will, therefore, be found to differ, in some instances, from the more correct numbers to be published hereafter in the Annual Report of the Registrar-General.



MARRIAGES Registered in Quarters ended 30th September, 1857-59; and  
BIRTHS and DEATHS in Quarters ended 31st December, 1857-59.

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA in Statute	POPULATION, 1851. (Persons.)	MARRIAGES in Quarters ended 30th September.		
			'59.	'58.	'57.
	Acres.	No.	No.	No.	No.
ENGLD. & WALES....Totals	37,324,915	17,927,609	39,926	38,628	38,669
I. London .....	78,029	2,362,236	7,835	6,969	6,953
II. South Eastern .....	4,065,935	1,628,416	3,249	3,114	3,033
III. South Midland .....	3,201,290	1,234,332	2,061	2,159	2,166
IV. Eastern .....	3,214,099	1,113,982	1,689	1,797	1,720
V. South Western .....	4,993,660	1,803,261	3,366	3,163	3,120
VI. West Midland .....	3,865,332	2,136,573	4,844	4,730	4,894
VII. North Midland .....	3,540,797	1,215,501	2,327	2,215	2,242
VIII. North Western .....	2,000,227	2,488,438	6,763	6,374	6,330
IX. Yorkshire .....	3,654,636	1,789,047	4,112	3,921	3,874
X. Northern .....	3,492,322	969,126	2,082	1,994	2,022
XI. Monmthsh. & Wales	5,218,588	1,186,697	2,298	2,192	2,315

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 30th December.			DEATHS in Quarters ended 30th December.		
	'59.	'58.	'57.	'59.	'58.	'57.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES....Totals	170,090	158,007	161,016	109,450	118,663	110,576
I. London .....	23,625	22,839	22,351	15,884	17,849	15,516
II. South Eastern .....	14,625	13,413	13,714	8,989	9,511	8,574
III. South Midland .....	10,612	9,946	10,262	6,829	6,268	6,763
IV. Eastern .....	9,248	8,523	8,719	5,787	5,976	6,420
V. South Western .....	14,664	13,607	13,599	955,6	10,120	8,931
VI. West Midland .....	21,444	20,032	20,312	13,679	14,579	13,807
VII. North Midland .....	11,256	10,132	10,663	7,054	7,988	6,871
VIII. North Western .....	25,582	23,402	24,334	17,089	20,110	19,149
IX. Yorkshire .....	17,999	16,451	17,217	11,684	12,842	12,090
X. Northern .....	10,156	9,790	9,676	6,154	6,158	6,132
XI. Monmthsh. & Wales	10,880	9,872	10,169	6,745	7,262	6,323

## REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING DECEMBER 31st, 1859.

*By JAMES GLAISHER, ESQ., F.R.S., &c., Sec. of the British Meteorological Society.*

From October 1st to the 20th the weather was very fine, and the average excess of daily temperature was  $6^{\circ}$ . On the 21st a sudden and very severe cold set in; the depressions below their average temperatures on the 21st and 22nd exceeded  $12^{\circ}$  on both days, and was as much as  $15^{\circ}$  below on the 23rd, and nearly  $16^{\circ}$  on the 24th; the daily average defect of temperature from October 21st to the end of the month was  $8\frac{1}{2}^{\circ}$  nearly. From November 1st to 8th was warm; the daily excess of temperature was  $3\frac{3}{4}^{\circ}$ . A cold period set in on November 9th, and continued, with the exception of a very few days, to December 23rd; the cold was very severe between December 14th and 19th, particularly so from 16th to 19th; the defect of temperature on these days amounted to  $15^{\circ}$ ,  $17^{\circ}$ ,  $16\frac{1}{2}^{\circ}$ , and  $15\frac{1}{2}^{\circ}$  respectively; the average daily defect of temperature for the 45 days ending December 23rd was  $2\frac{1}{4}^{\circ}$ . From December 24th to the end of the year was warm, particularly on the last two days, when excesses of temperature over their averages were  $13^{\circ}$  and  $15^{\circ}$  respectively, and for the eight days ending December 31st average  $8^{\circ}$  daily.

The ranges of temperatures in the months of October and December, as might be expected from the preceding facts, were very remarkable, the extreme readings having been both remarkably high and low in both months all over the country; the following Tables show these extreme readings in October:

TABLE of the Maxima and Minima Temperatures during the month of  
OCTOBER, 1859.

Names of Stations.	Highest.	Lowest.	Range.	Names of Stations.	Highest.	Lowest.	Range.
	o	o	o		o	o	o
Guernsey .....	71.0	37.0	34.0	Royston .....	80.3	26.3	54.0
Helston .....	73.0	32.0	41.0	Gloucester .....	75.0	24.0	51.0
Truro .....	73.0	30.0	43.0	Aspley .....	67.5	30.5	37.0
Exeter (Elmbrook) .....	70.0	28.0	42.0	Cardington .....	76.0	21.6	54.4
Exeter (200, High St.).	71.2	29.7	41.5	Hereford .....	76.8	22.5	54.3
Osborne .....	74.8	29.9	44.9	Lampeter .....	71.4	25.2	46.2
Worthing .....	71.2	30.5	40.7	Norwich .....	74.0	25.0	49.0
Fairlight .....	71.0	24.0	47.0	Grantham .....	73.5	25.8	47.7
Little Bridy .....	79.2	26.4	52.8	Belvoir Castle .....	76.5	20.5	56.0
Barnstaple .....	72.5	32.0	40.5	Derby .....	70.0	21.0	49.0
Aldershot Camp .....	79.0	23.5	55.5	Holkham .....	74.2	25.2	49.0
Clifton .....	73.1	24.6	48.5	Nottingham .....	77.5	19.4	58.1
Royal Observatory .....	81.0	26.5	54.5	Liverpool .....	69.4	29.7	39.7
St Thomas's Hospital ..	78.7	30.1	48.6	Manchester .....	72.8	24.5	48.3
St. John's Wood .....	80.0	27.0	53.0	Ben Rhydding .....	71.0	22.0	49.0
Guildhall .....	75.5	30.2	45.3	Wakefield .....	77.9	21.5	56.4
Whitehall .....	85.0	28.3	56.7	Leeds .....	76.0	26.0	50.0
Camden Town .....	80.9	26.6	54.3	Stonyhurst .....	71.7	25.2	46.5
Battersea .....	79.0	22.0	57.0	York .....	68.0	19.0	49.0
St. Mary's Hospital ..	82.0	27.0	55.0	Scarborough .....	64.5	27.0	37.5
Rose Hill .....	73.7	22.8	50.9	Isle of Man .....	66.3	29.6	36.7
Oxford .....	70.0	21.7	48.3	North Shields .....	69.0	24.0	45.0
Bicester .....	79.0	21.5	57.5	St. Paul's Parsonage ..	73.2	21.1	52.1
Great Berkhamstead ..	77.2	20.2	57.0	Bywell .....	79.0	24.5	54.5
Hartwell House .....	75.0	21.0	54.0	Allenheads .....	69.0	24.0	45.0
Hartwell Rectory .....	77.6	23.0	54.6	Sale Hall .....	73.2	22.3	50.9

From the numbers in this table it will be seen that in some cases the range of temperature has closely approximated to  $60^{\circ}$ , though not actually attained in any instance. The effect of the vicinity of the sea in lessening the maximum and raising the minima temperatures, are well shown. The ranges of temperatures in this month are very similar to those in the month of April of this year. The next table shows the extreme readings in December.



TABLE of the *Maxima and Minima Temperatures during the Month of*  
DECEMBER, 1859.

Names of Stations.	Highest.	Lowest.	Range	Names of Stations.	Highest.	Lowest.	Range
	°	°	°		°	°	°
Guernsey .....	55.0	26.5	29.0	Royston .....	54.8	12.0	42.8
Helston .....	57.0	22.0	35.0	Gloucester .....	54.5	10.0	44.5
Truro .....	57.0	9.0	48.0	Aspley .....	51.0	20.0	31.0
Exeter (Elmbrook) .....	57.0	14.5	42.5	Cardington .....	56.0	6.0	50.0
Exeter (200, High St.) .....	57.4	16.2	41.2	Lampeter .....	53.6	2.0	55.6
Osborne .....	64.3	17.6	46.7	Norwich .....	55.0	1.0	54.0
Worthing .....	51.9	20.9	31.0	Grantham .....	54.2	12.7	41.5
Fairlight .....	52.0	20.0	33.0	Belvoir Castle .....	53.7	9.3	44.4
Little Bridy .....	53.3	15.5	37.8	Derby .....	52.0	9.0	43.0
Barnstaple .....	55.0	17.0	38.0	Holkham .....	55.5	3.8	51.7
Aldershot Camp .....	55.0	15.5	39.5	Nottingham .....	53.8	7.0	46.8
Clifton .....	55.0	10.2	44.8	Hawarden .....	55.0	9.0	46.5
Lewisham .....	56.5	10.0	46.5	Liverpool .....	54.0	16.9	37.1
Royal Observatory .....	56.5	14.0	42.5	Manchester .....	54.5	11.2	43.3
St. Thomas's Hospital .....	55.5	19.8	35.7	Ben Rhydding .....	51.0	11.5	39.5
St. John's Wood .....	55.8	17.2	38.6	Wakefield .....	55.8	5.0	50.8
Guildhall .....	55.2	21.0	34.2	Leeds .....	59.0	14.0	45.0
Whitehall .....	56.0	18.5	37.5	Stonyhurst .....	52.3	12.7	39.6
Camden Town .....	56.4	14.4	42.0	York .....	49.0	6.5	42.5
Battersea .....	55.0	15.0	40.0	Scarborough .....	50.0	14.5	35.5
Rose Hill .....	56.1	11.5	44.6	Isle of Man .....	52.9	10.3	42.6
Oxford .....	56.5	11.4	45.1	North Shields .....	51.8	15.0	36.8
Bicester .....	55.0	10.5	44.5	St. Paul's Parsonage .....	51.1	12.0	39.0
Great Berkhamstead .....	—	—	—	Bywell .....	50.5	10.5	40.0
Hartwell Rectory .....	55.9	13.6	42.3	Allenheads .....	48.0	10.5	37.5

From this table it will be seen that the temperatures in the month of December have been remarkably low. At Lampeter it is stated to have been as low as  $-2^{\circ}$ ; at Norwich,  $1^{\circ}$ , confirmed by Holkham,  $3^{\circ} 8$ , although it is situated close to the sea; these very low temperatures are, however, confined to a few localities only; at many stations the minima readings were, however, below  $10^{\circ}$ .

The mean high day temperature of October was  $59^{\circ}$ , being  $\frac{3}{4}^{\circ}$  above the average; of November was  $49^{\circ} 4$ , being the same as the average; and of December was  $41^{\circ} \frac{1}{2}$ , being  $4^{\circ}$  below the average.

The mean low night temperature of October was  $45^{\circ}$ , being  $1^{\circ} \frac{1}{2}$  in excess; of November was  $35^{\circ} \frac{1}{2}$ , being  $2^{\circ} \frac{1}{2}$  below the average; and in December was  $31^{\circ} \frac{3}{4}$ , being  $4^{\circ}$  too low.

Therefore both the days and nights in October were moderately warm; in November the days were of their average warmth, but the nights were cold; and both the days and nights in December were very cold.

The mean temperature of October was  $1^{\circ} \frac{1}{4}$  in excess, November was  $1^{\circ} \frac{1}{2}$ , and December was  $3^{\circ} \frac{1}{4}$  in defect, as compared with the average of the 18 preceding years.

The mean temperature of the whole year was  $50^{\circ} 8$ , being  $2^{\circ} 5$  above the average of 88 years.

The mean temperature of the dew-point was above its average in October, and below it in November and December. The degree of humidity for the quarter is that of the average.

The mean temperature of the dew-point for the year was  $44^{\circ} \frac{3}{4}$ , and the mean degree of humidity was  $8^{\circ}$ , complete saturation being represented by 100.

The pressure of the atmosphere was above its average in November, and was much less both in October and December. The mean for the year at the height of 160 feet above the level of the sea, and in latitude  $51^{\circ} \frac{1}{2}$ , was  $29.772$  inches.

The decrease of temperature from October to November was from  $5^{\circ}$  to  $10^{\circ}$ ,

being generally small near the sea, excepting at Worthing; the decrease from November to December was 5° or 6°, and nearly uniform all over the country.

The reading of the barometer was low in October; it increased 0·3 inch generally by November, and was 0·2 inch lower in December than in the preceding month.

The range of readings of the barometer in the month of November was large, amounting to 1¼ inch in the south of England, gradually increasing to 2¼ inches in the north, and in December was also large, exceeding 2 inches at all places.

The fall of rain in the quarter was 8¾ inches, exceeding the average by 1·6 inch. The fall in the year amounted to 25·9 inches, exceeding the average by half an inch; this is the first year since 1854 that the fall of rain has not been short of the average.

The temperature of vegetation, as indicated by a thermometer placed on grass, was below 30° on 52 nights out of the quarter.

The mean temperature of the air at Greenwich for the three months ending November, constituting the three autumn months, was 49°·9, being 0°·7 below the average of 88 years.

1859. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 88 Years.	Diff. from Average of 18 Years.	Mean.	Diff. from Average of 18 Years.	Mean.	Diff. from Average of 18 Years.	Mean.	Diff. from Average of 18 Years.					
Oct. ....	50·9	+1·0	+1·3	49·4	+1·3	47·9	+2·1	14·0	−0·7	57·9	In. ·334	In. +·024	Gr. 3·7	Gr. +0·2
Nov. ....	42·1	−0·3	−1·5	40·4	−1·6	38·8	−2·0	13·9	+2·4	45·9	·231	−·026	2·6	−0·3
Dec. ....	36·8	−2·2	−3·7	35·4	−3·6	33·4	−3·9	9·7	+0·2	39·0	·191	−·038	2·2	−0·4
Mean.....	43·3	−0·5	−1·3	41·7	−1·3	39·9	−1·3	12·5	+0·6	47·6	·252	−·013	2·8	−0·2

1859. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Hori- zontal Move- ment of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Aver- age of 18 Years.	Mean.	Diff. from Aver- age of 18 Years.	Mean.	Diff. from Aver- age of 18 Years.	Amnt.	Diff. from Aver- age of 44 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
Oct. ....	89	+ 2	In. 29·523	—·168	Gr. 535	— 4	In. 3·6	+0·8	Miles. —	8	3	20	° 20·0	° 56·0
Nov. ....	87	— 2	29·824	+·068	551	+ 4	2·9	+0·5	—	20	6	4	18·2	45·0
Dec. ....	88	— 1	29·623	—·209	553	+ 1	2·2	+0·3	—	24	5	2	11·0	43·0
Mean.....	88	0	29·657	—·103	546	0	Sum 8·7	Sum +1·6	Mean —	Sum 52	Sum 14	Sum 26	Lowest 11·0	Highest 56·0

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.



*Thunder storms occurred, or thunder was heard and lightning seen* on the 7th of October at Fairlight, Cardington, and Holkham; on the 8th at Norwich; on the 10th at Fairlight; on the 21st at Holkham, Scarborough, and the Isle of Man; on the 22nd at Fairlight; on the 23rd at Allenheads; on the 24th at Fairlight and Little Bridy; on the 25th at Helston; on the 26th at Manchester; on the 30th at Barnstable; and on the 31st at Barnstaple and Oxford. On the 1st of November at Helston, Osborne, Fairlight, and Clifton; on the 6th at Aldershot and Great Berkhamstead; on the 7th at Fairlight and Manchester; and on the 30th at Scarborough. On the 17th of December at North Shields; on the 21st at Aldershot and Gloucester; on the 27th at Helston; on the 28th at Guernsey, Truro, Exeter, and Little Bridy; on the 30th at Clifton, Nottingham, and North Shields; and on the 31st at Norwich.

*Thunder was heard, but lightning was not seen*, on the 4th of October at Stonyhurst and Allenheads; on the 7th at Scarborough; on the 21st at Helston, Osborne, and Oxford; on the 22nd at Osborne and Stonyhurst; and on the 25th at Oxford. On the 6th of November at Little Bridy; on the 17th and 20th of December at Little Bridy; and on the 30th at Bywell.

*Lightning was seen, but thunder not heard*, on the 10th and 17th of October at Little Bridy; on the 21st, 22nd, 23rd, 24th, 25th, and 26th, throughout most parts of the country; on the 27th near Oxford; and on the 31st in different parts of the country; and also on six days in November and nine days in December.

*Solar halos were seen* on nine days in October, nine days in November, and on thirteen days in December.

*Lunar halos were seen* on five nights in October, eight nights in November, and nine nights in December.

*Auroræ were seen* on the 1st of October at Fairlight, Little Bridy, Clifton, Great Berkhamstead, Cardington, Norwich, Hereford, Nottingham, and Bywell; on the 2nd at Little Bridy, Clifton, Cardington, Nottingham, Wakefield, Bywell, and Allenheads; on the 4th and 5th at Allenheads; on the 7th at Camden Town; on the 12th at Helston, Exeter, Fairlight, Little Bridy, Clifton, Camden Town, Cardington, Grantham, Nottingham, Stonyhurst, and Allenheads; on the 13th at Osborne; on the 14th at Osborne; on the 15th and 16th at Nottingham; on the 17th at Osborne; on the 20th at North Shields and Allenheads; on the 21st at Little Bridy, Nottingham, and North Shields; on the 22nd at Great Berkhamstead, North Shields, and Allenheads; on the 23rd at Grantham and Nottingham; and on the 31st at Nottingham. On the 3rd of November at Allenheads; on the 5th at North Shields; on the 10th at Belvoir; on the 13th at Clifton and Allenheads; on the 14th at Allenheads; and on the 15th at Cardington and Nottingham. On the 13th of December at Clifton, Bicester, Cardington, Nottingham, and Scarborough; on the 14th at Nottingham, Stonyhurst, and St. Paul's Parsonage; on the 19th at Little Bridy; and on the 22nd at Nottingham.

*Snow fell* frequently at most places between 31st October and 23rd December.

*Hail fell* during the latter part of the month of October at several places; and on six days in November and on ten days in December at different places.





**Trade of United Kingdom, 1859-8-7.**—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) of Imports at Port of Entry, and therefore including Freight of Imports.*

Exports to, and Imports from, the following Foreign Countries, &c. (The Unit 000's are omitted.)	FIRST NINE MONTHS.					
	1859.		1858.		1857.	
	Exports to	Imports from	Exports to	Imports from	Exports to	Imports from
<b>I.—FOREIGN COUNTRIES:</b>	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland } Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium } Western Europe; viz., France, Portugal (with the Azores, Madeira, &c.), and Spain } (with Gibraltar and Canaries)..... } Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta } Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt } Northern Africa; viz., Tripoli, Tunis, } Algeria and Morocco ..... } Western Africa..... } Eastern Africa; with African Ports on Red } Sea, Aden, Arabia, Persia, and Bourbon.. } Indian Seas, Siam, Singapore, Sumatra, } Java, and Philippines ..... } China, including Hong Kong..... } South Sea Islands ..... } United States, including California..... } Mexico and Central America..... } Foreign West Indies..... } South America, (Northern,) New Granada, } Venezuela, and Ecuador ..... } " (Atlantic) Brazil, Uruguay, } and Buenos Ayres..... } " (Pacific,) Peru, Bolivia, } Chili, and Patagonia..... } Whale Fisheries; Grnld., Davis's Straits, } Southn. Whale Fishery, Falkland Islands.... }	4,712,	11,703,	3,377,	8,861,	3,915,	{ not give
	13,537,	14,436,	14,838,	12,747,	16,882,	—
	6,684,	16,534,	7,148,	12,534,	8,240,	—
	4,039,	2,983,	4,910,	2,355,	4,184,	—
	5,071,	8,306,	5,215,	6,105,	4,684,	—
	118,	196,	91,	188,	145,	—
	512,	871,	505,	1,089,	614,	—
	263,	39,	45,	64,	30,	—
	2,310,	1,395,	1,787,	986,	1,500,	—
	3,179,	6,556,	2,014,	5,542,	1,634,	—
	40,	—	30,	—	53,	—
	17,426,	25,612,	10,189,	27,409,	16,911,	—
	595,	398,	651,	258,	632,	—
	1,927,	2,587,	1,896,	2,926,	2,338,	—
	797,	477,	629,	327,	682,	—
	4,082,	3,740,	3,932,	2,629,	5,498,	—
	1,515,	2,624,	1,673,	5,021,	1,901,	—
	7,	80,	—	153,	—	—
<i>Total.—Foreign Countries</i> .....	66,814,	98,537,	58,930,	89,194,	69,843,	—
<b>II.—BRITISH POSSESSIONS:</b>						
British India and Ceylon .....	15,999,	10,805,	12,787,	10,687,	9,119,	—
Australian Colonies.—New S. Wales & Victoria " " South Australia, Tas- mania, and New Zealand .....	6,329, 1,320,	3,643, 1,414,	5,948, 1,672,	3,218, 1,096,	7,229, 1,272,	—
British North America .....	3,384,	3,502,	2,971,	2,663,	4,108,	—
" W. Indies with Btsh. Guiana & Honduras	1,572,	4,581,	1,674,	5,325,	1,652,	—
Cape and Natal.....	1,392,	1,065,	1,275,	1,000,	1,354,	—
Br. W. Co. of Af., with St. Helena & Ascension	329,	149,	207,	177,	283,	—
Mauritius .....	431,	1,365,	460,	1,113,	466,	—
Channel Islands .....	467,	334,	387,	323,	407,	—
<i>Total.—British Possessions</i> .....	31,223,	26,858,	27,381,	25,602,	25,890,	—
<i>General Total</i> .....£	98,037,	125,395,	86,311,	114,796,	95,733,	—

IMPORTS.—(United Kingdom.)—First Eleven Months (*Jan.—Nov.*)  
 1859-8-7-6.—*Computed Real Value of Articles of Foreign and Colonial  
 Merchandize Imported into the United Kingdom.* (000's omitted.)

(First Eleven Months.) FOREIGN ARTICLES IMPORTED.		1859.	1858.	1857.	1856.
		£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool ....	28,762,	26,346,	26,733,	23,948,
	Wool (Sheep's)..	8,791,	7,717,	8,653,	7,625,
	Silk .....	8,904,	5,488,	12,168,	7,097,
	Flax .....	3,463,	2,708,	3,363,	3,223,
	Hemp .....	2,205,	1,520,	1,763,	1,696,
	Indigo .....	1,888,	2,167,	2,030,	2,278,
		54,013,	45,946,	54,710,	45,867,
,, ,, <i>Various.</i>	Hides .....	2,795,	2,005,	3,796,	2,271,
	Oils .....	2,846,	2,979,	3,306,	3,337,
	Metals .....	3,221,	3,191,	3,496,	3,207,
	Tallow .....	2,547,	2,240,	2,713,	2,477,
	Timber .....	7,002,	4,638,	6,469,	7,029,
		18,411,	15,053,	19,960,	18,321,
,, ,, <i>Agricltl.</i>	Guano .....	720,	3,634,	2,217,	1,932,
	Seeds .....	2,570,	2,005,	2,494,	2,554,
		3,290,	5,639,	4,711,	4,486,
TROPICAL, & C., PRODUCE.	Tea .....	4,510,	4,599,	4,300,	4,431,
	Coffee .....	1,788,	1,505,	1,553,	1,370,
	Sugar & Molasses	11,322,	11,868,	14,790,	10,568,
	Tobacco .....	1,068,	1,522,	1,651,	1,403,
	Rice .....	658,	1,475,	1,619,	1,625,
	Fruits .....	950,	569,	1,030,	937,
	Wine .....	2,320,	1,803,	3,584,	3,148,
	Spirits .....	1,993,	1,059,	2,597,	1,827,
		24,609,	24,400,	31,124,	25,309,
FOOD .....	Grain and Meal..	16,558,	18,714,	17,228,	20,525,
	Provisions .....	2,986,	2,880,	3,770,	4,291,
		19,544,	21,594,	20,998,	24,816,
Remainder of Enumerated Articles .....		2,966,	2,586,	3,547,	2,931,
TOTAL ENUMERATED IMPORTS .....		122,833,	115,218,	135,050,	121,730,
Add for UNENUMERATED IMPORTS (say) .....		30,708,	28,804,	33,762,	30,432,
TOTAL IMPORTS .....		153,541,	144,022,	168,812,	152,162,



EXPORTS. — (United Kingdom.) — Years ended 31st December, 1859-8-7-6.—*Declared Real Value of Articles of BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.*

(Year.)	BRITISH PRODUCE, &c., EXPORTED. (000's omitted.)	1859.	1858.	1857.	1856.
		£	£	£	£
MANFRS.— <i>Textile.</i>	Cotton Manufactures..	38,743,	33,402,	30,373,	30,204,
	„ Yarn.....	9,466,	9,573,	8,701,	8,029,
	Woollen Manufactures	12,033,	9,778,	10,703,	9,500,
	„ Yarn.....	3,080,	2,954,	2,942,	2,890,
	Silk Manufactures ...	2,145,	1,868,	2,573,	2,666,
	„ Yarn.....	207,	229,	317,	296,
	Linen Manufactures...	4,607,	4,124,	4,517,	4,888,
	„ Yarn.....	1,685,	1,739,	1,648,	1,366,
		71,966,	63,667,	61,774,	59,839,
„ <i>Sewed.</i>	Apparel .....	2,191,	1,944,	2,159,	1,816,
	Haberd. and Millnry	4,289,	3,474,	3,894,	3,638,
		6,480,	5,418,	6,053,	5,454,
METALS .....	Hardware and Cutlery	3,826,	3,280,	4,016,	3,748,
	Machinery .....	3,701,	3,604,	3,884,	2,716,
	Iron .....	12,327,	11,236,	13,406,	12,966,
	Copper and Brass.....	2,600,	2,854,	3,124,	2,648,
	Lead and Tin .....	2,552,	2,238,	2,516,	2,381,
	Coals and Culm .....	3,266,	3,053,	3,211,	2,827,
		28,272,	26,265,	30,157,	27,286,
<i>Ceramic Manufcts.</i>	Earthenware and Glass	1,921,	1,721,	2,151,	1,916,
<i>Indigenous Mnfrs.</i>	Beer and Ale .....	2,116,	1,852,	1,592,	1,455,
	Butter .....	717,	541,	562,	694,
	Cheese .....	138,	91,	114,	160,
	Candles .....	188,	157,	280,	305,
	Salt .....	254,	288,	337,	401,
	Spirits .....	306,	207,	752,	998,
	Soda.....	1,024,	813,	761,	603,
		4,743,	3,949,	4,398,	4,621,
<i>Various Manufcts.</i>	Books, Printed.....	478,	390,	422,	425,
	Furniture .....	242,	258,	289,	208,
	Leather Manufactures	1,998,	2,011,	2,289,	1,756,
	Soap.....	226,	210,	240,	276,
	Plate and Watches ...	495,	454,	545,	481,
	Stationery.....	840,	804,	742,	720,
		4,279,	4,127,	4,527,	3,866,
Remainder of Enumerated Articles .....		3,366,	3,524,	3,806,	4,465,
Unenumerated Articles .....		9,413,	7,943,	9,200,	8,377,
		130,440,	116,614,	122,066,	115,824,
TOTAL EXPORTS .....					

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—Years 1859-8-7-6.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(Year.)	1859.			1858.		1857.		1856.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
<b>ENTERED:—</b>									
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia .....	346	103,	299	233	70,	169	43,	118	27,
Sweden .....	912	151,	165	720	120,	549	98,	331	99,
Norway .....	2,564	578,	221	2,187	483,	2,080	450,	2,259	469,
Denmark .....	2,771	277,	99	2,400	238,	2,511	244,	2,055	195,
Prussia and German Sts.	3,603	799,	221	3,173	715,	3,428	664,	3,084	584,
Holland and Belgium ...	1,622	225,	138	1,398	211,	1,485	243,	1,418	220,
France .....	2,334	192,	82	2,716	234,	1,122	90,	846	50,
Spain and Portugal.....	399	94,	235	379	79,	399	86,	188	42,
Italy and other Euro- pean States .....	699	197,	281	837	640,	577	169,	378	86,
United States .....	1,115	1,078	966	1,276	1,187,	1,250	1,214,	1,447	1,379,
All other States .....	24	7,	271	17	6,	32	13,	22	7,
	16,389	3,701,	226	15,335	3,583,	13,602	3,314,	12,146	3,158,
United Kingdom and Dependencies .....	19,909	5,389,	270	19,256	5,233,	19,091	5,418,	18,258	5,086,
<b>Totals Entered</b>	36,298	9,090,	250	34,591	8,816,	32,693	8,732,	30,404	8,244,
<b>CLEARED:—</b>									
Russia .....	366	109,	299	242	72,	178	44,	97	21,
Sweden .....	946	158,	167	798	139,	714	135,	652	126,
Norway .....	1,782	343,	192	13,79	262,	1,696	330,	1,795	339,
Denmark .....	3,161	313,	99	2,999	302,	3,141	317,	2,706	259,
Prussia and German Sts.	5,117	971,	190	4,832	872,	4,776	827,	4,272	735,
Holland and Belgium ...	2,024	305,	151	2,070	337,	2,134	388,	1,850	307,
France .....	3,612	394,	109	4,294	456,	4,410	474,	3,682	362,
Spain and Portugal.....	377	93,	247	399	89,	424	96,	254	59,
Italy and other Euro- pean States .....	837	233,	278	1,040	297,	739	222,	509	119,
United States .....	1,158	1,091,	942	1,308	1,229,	1,334	1,296,	1,541	1,442,
All other States .....	26	8,	324	18	6,	21	8,	24	9,
	19,406	4,018,	207	19,379	4,061,	19,567	4,137,	17,382	3,778,
United Kingdom and Dependencies .....	23,701	6,224,	263	23,455	5,875,	24,834	6,204,	23,973	5,885,
<b>Totals Cleared</b>	43,107	10,242,	238	42,834	9,936,	44,401	10,341,	41,355	9,663,



GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.  
—(United Kingdom.)—*Computed Real Value for the Years 1859-8.*

(Year.)	1859.			1858.		
	Gold.	Silver.	TOTAL.	Gold.	Silver.	TOTAL.
<b>Imported from:—</b>	£	£	£	£	£	£
Australia .....	8,625,	3,	8,628,	9,065,	1,	9,066,
So. America and W. Indies ..	1,739,	3,385,	5,124,	3,848,	2,987,	6,835,
United States and California	7,909,	1,794,	9,673,	4,502,	309,	4,811,
	18,273,	5,152,	23,425,	17,415,	3,297,	20,712,
France .....	936,	6,366,	7,302,	654,	2,979,	2,733,
Hanse Towns, Holl. & Belg.	379,	2,927,	3,306,	1,623,	743,	2,366,
Portugal, Spain, and Gbrltr.	90,	272,	362,	172,	433,	605,
Malta, Turkey, and Egypt ....	318,	15,	333,	1,282,	14,	1,296,
China .....	—	3,	3,	35,	86,	121,
West Coast of Africa .....	97,	4,	101,	111,	3,	114,
All other Countries.....	2,205,	33,	2,238,	1,501,	45,	1,546,
<i>Totals Imported .....</i>	22,298,	14,772,	37,070,	22,793,	6,700,	29,493,
<b>Exported to:—</b>						
France .....	14,902,	482,	15,384,	10,530,	391,	10,921,
Hanse Towns, Holl. & Belg.	929,	955,	1,884,	315,	1,254,	1,569,
Portugal, Spain, and Gbrltr.	739,	—	739,	187,	—	187,
	16,570,	1,437,	18,007,	11,032,	1,645,	12,677,
India and China (viâ Egypt).	613,	16,004,	16,617,	131,	5,089,	5,220,
Danish West Indies .....	137,	6,	143,	132,	73,	205,
United States .....	10,	4,	14,	135,	67,	202,
South Africa .....	5,	5,	10,	64,	3,	67,
Mauritius.....	—	1,	1,	107,	26,	133,
Brazil .....	98,	99,	197,	289,	126,	415,
All other Countries.....	648,	51,	699,	675,	34,	709,
<i>Totals Exported .....</i>	18,081,	17,607,	35,688,	12,565,	7,063,	19,628,
<i>Excess of Imports .....</i>	4,217,	—	1,382,	10,228,	—	9,865,
„ <i>Exports .....</i>	—	2,835,	—	—	363,	—

## REVENUE.—(UNITED KINGDOM.)—31ST DECEMBER, 1859-8-7-6.

*Net Produce in YEARS and QUARTERS ended 31ST DECEMBER, 1859-8-7-6.*

[Unit 000's omitted.]

QUARTERS, ended 31st Dec.	1859.	1858.	1859.		Corresponding Quarters.	
			Less.	More.	1857.	1856.
	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.
Customs .....	6,225,	6,209,	—	16,	5,590,	6,232,
Excise .....	5,360,	5,004,	—	356,	4,769,	4,816,
Stamps .....	2,018,	2,029,	11,	—	1,761,	1,838,
Taxes .....	1,424,	1,383,	—	41,	1,361,	1,356,
Post Office .....	830,	860,	30,	—	810,	748,
	15,857,	15,485,	41,	413,	14,291,	14,990,
Property Tax .....	938,	547,	—	391,	808,	1,423,
	16,795,	16,032,	41,	804,	15,099,	16,413,
Crown Lands .....	83,	83,	—	—	82,	86,
Miscellaneous .....	235,	918,	683,	—	726,	196,
<i>Totals</i> .....	17,113,	17,033,	724,	804,	15,907,	16,695,
			'59 More—£80,172			

YEARS, ended 31st Dec.	1859.	1858.	1859.		Corresponding Years.	
			Less.	More.	1857.	1856.
	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.
Customs .....	24,825,	24,092,	—	733,	22,464,	23,618,
Excise .....	19,041,	17,966,	—	1,075,	17,472,	18,074,
Stamps.....	7,977,	7,996,	19,	—	7,269,	7,268,
Taxes .....	3,231,	3,158,	—	73,	3,104,	3,105,
Post Office .....	3,225,	3,075,	—	150,	2,992,	2,869,
	58,299,	56,287,	19,	2,031,	53,301,	54,934,
Property Tax .....	6,077,	7,591,	1,514,	—	15,138,	16,029,
	64,376,	63,878,	1,533,	2,031,	68,439,	70,963,
Crown Lands .....	282,	278,	—	5,	274,	285,
Miscellaneous .....	1,413,	2,131,	718,	—	1,677,	971,
<i>Totals</i> .....	66,071,	66,287,	2,251,	2,036,	70,390,	72,219,
			'59 Less—£216,526			



REVENUE (UNITED KINGDOM).—QUARTER ENDED 31ST DECEMBER, 1859 :—  
APPLICATION.

*An Account showing the REVENUE and other RECEIPTS of the QUARTER ended the 30th Sept., 1859 ; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th September, 1859, viz.:—	£
Great Britain .....	—
Ireland .....	£199,592
	<u>199,592</u>
Income received in the Quarter ended 31st December, 1859, as shown in Account 1 .....	17,112,830
Amount received in the Quarter ended 31st December, 1859, in repayment of Advances for Public Works, &c. ....	683,354
	<u>17,995,776</u>
Balance, being the <i>Deficiency</i> on the 31st December, 1859, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends and other Charges payable in the Quarter to 31st March, 1860, and for which Exchequer Bills (Deficiency) will be issued in that Quarter .....	2,971,501
	<u>£20,967,277</u>

Paid:—

Amount applied out of the Income for the Quarter ended 31st December, 1859, in Redemption of Exchequer Bills (Deficiency) for the Quarter ended 30th September, 1859, viz.:—	£
	2,961,974
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 31st December, 1859 .....	9,171,604
Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st December, 1859, viz.:—	
Interest of the Permanent Debt .....	£6,324,250
Terminable Debt .....	949,883
Interest of Exchequer Bills (Deficiency) .....	487
The Civil List .....	101,171
Other Charges on Consolidated Fund .....	414,922
Advances for Public Works, &c. ....	322,395
	<u>8,113,108</u>
Surplus Balance beyond the Charge of the Consolidated Fund for the Quarter ended 31st December, 1859, viz.:—	
Great Britain .....	—
Ireland .....	720,591
	<u>720,591</u>
	<u>£20,967,277</u>

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Fourth Quarter of 1859.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday, 1859.		Weekly Average. (Per Impl. Quarter.)					
		Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
October 1 .....		42 1	35 9	20 10	29 9	39 7	38 5
" 8 .....		42 5	35 8	21 7	29 10	39 3	38 —
" 15 .....		42 6	35 10	21 3	29 7	38 9	39 8
" 22 .....		42 10	35 5	21 2	29 6	39 2	37 7
" 29 .....		43 1	35 6	20 11	30 4	38 9	38 2
Average for October ....		42 7	35 7	21 1	29 9	39 1	38 4
November 5 .....		42 9	35 9	22 1	30 2	39 3	38 8
" 12 .....		42 10	35 11	21 5	29 7	40 3	37 9
" 19 .....		43 1	35 11	21 11	28 4	40 9	39 6
" 26 .....		44 1	36 1	22 6	29 1	41 2	39 —
Average for November ..		43 2	35 11	21 11	29 3	40 4	38 8
December 3 .....		44 8	36 5	21 9	30 7	41 9	39 3
" 10 .....		43 11	35 10	21 5	32 10	41 1	39 1
" 17 .....		43 8	35 1	21 9	30 —	41 —	38 9
" 24 .....		43 6	34 9	21 1	28 10	39 11	37 6
" 31 .....		44 2	34 8	21 5	35 1	39 7	37 8
Average for December ....		43 11	35 4	21 5	31 5	40 8	38 5
Average for the Quarter ..		43 4	35 7	21 6	30 3	40 —	38 6
Average for the Year ....		43 9	33 6	23 2	32 4	42 3	39 8

## RAILWAYS.—PRICES, Oct.—Dec.,—and TRAFFIC Jan.—Dec., 1859.

Railway.	For the (£100). Price on			Miles Open.		Total Traffic Whole 52 Weeks. Unit 000's omitted.		Traffic pr. Mile pr. Wk. 52 Weeks.		Dividends per Cent. for Half Years.		
	1 Dec.	2 No.	1 Oct.	'59.	'58.	'59.	'58.	'59.	'58.	30 Jun., '59.	31 Dec. '58.	30 Jun., '58.
				No.	No.	£	£	£	£	s. d.	s. d.	s. d.
Lond. & N. Westn.	97½	95¾	93¾	917	891	3,712,	3,439,	78	74	42 6	42 6	37 6
Great Western ....	66¾	65	63¾	465	465	1,622,	1,520,	67	63	20 —	25 —	—
Great Northern ....	105	102½	102½	283	283	1,274,	1,211,	87	82	33 9	61 3	33 9
Eastern Counties.	56	56	56	499	489	1,308,	1,284,	50	50	19 1	30 1	21 1
Brighton .....	113	113	112½	223	202	825,	778,	71	74	50 —	70 —	50 —
South-Eastern ....	81½	77	77	306	302	572,	536,	35	34	40 —	50 —	30 —
South-Western ....	96½	95½	94	337	291	872,	797,	50	53	42 6	57 6	42 6
	88	86	85½	3,030	2,923	10,185,	9,565,	65	63	35 5	48 7	30 8
Midland .....	107¾	106	105¼	614	614	1,791,	1,812,	117	118	42 6	55 —	42 6
Lancsh. and York.	99	97	96	395	395	1,558,	1,412,	76	69	45 —	40 —	37 6
Sheffield and Man.	36½	35¼	35½	173	173	555,	500,	128	116	4 —	—	—
North-Eastern ....	94¼	90	89¼	746	735	1,957,	1,863,	50	49	30 10	37 1	29 7
South Wales .....	74	73	70	171	171	354,	349,	40	39	22 6	25 —	60 —
	82¼	80¼	79	2,099	2,088	6,215,	5,936,	57	55	28 11	31 5	33 11
Caledonian .....	92¼	92¼	89½	198	198	368,	335,	36	33	37 6	40 —	55 —
Gt. S. & Wn. Irind.	113	108	108	229	229	365,	335,	31	28	50 —	50 —	50 —
Gen. aver. ....	88	86	85	5,556	5,438	17,133,	16,171,	59	57	34 4	41 8	34 11

Consols.—Money Prices 1st Dec. 95½ x. d.,—2nd Nov. 96½,—1st Oct. 95½, @ ¾.

Exchequer Bills. ,, 28s. pm.,—30s. pm.,—25s. pm.

BANK OF FRANCE.—*Abstract of Official Returns.*—25 francs = £.I.—LIABILITIES (*Passif*).

1 DATES.	2 3 4 Billets to Bearer. (Circulation.)			5 6 7 Billets to Order. (Bank Post Bills.)			8 9 10 11 Current Accounts. (Deposits.)				12 Other Liabili-	13 Total Liabi-
	Paris.	Branch.	Total.	Paris.	Récépissés.	Total.	Trea- sury.	Paris.	Branch.	Total.	ties.	ties.
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1859.												
Oct. 13..	—	—	28·08	·26	·34	·60	7·46	7·31	1·20	15·97	9·06	53·7
Nov. 10..	—	—	28·24	·22	·35	·57	7·98	6·98	1·19	16·15	9·19	54·1
Dec. 8....	—	—	27·14	·29	·28	·57	9·54	5·89	1·30	16·73	9·25	53·6

II.—ASSETS (*Actif*).

14 DATES.	15 16 17 Coin and Bullion.			18 19 20 Portfolio. (Discounts.)			21 Ad- vances on Ingots.	22 Advances on Public Stocks.	23 Advances on Shares.	24 Other Assets.	25 Total Asset
	Paris.	Branch.	Total.	Paris.	Branch.	Total.	Total.	Total.	Total.		
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1859.											
Oct. 13..	8·97	14·71	23·68	8·68	10·33	19·01	·04	1·68	3·31	5·99	53·7
Nov. 10..	8·47	14·47	22·94	9·30	10·89	20·19	·03	1·71	3·42	5·86	54·1
Dec. 8....	8·23	14·94	23·17	8·85	10·72	19·57	·02	1·71	3·37	5·85	53·6

## BANKS in BOSTON, NEW YORK, PHILADELPHIA and NEW ORLEANS, 1859.

*Monthly Averages deduced from Weekly Official Returns.* 85 = £.

1859.	Boston.				New York.				Rates of Discount in New York on Prime endorsed, 60 d. Bills.
Averages of Months of	Liabilities.		Assets.		Liabilities.		Assets.		
	Circl.	Deps.	Loans.	Specie.	Circl.	Deps.	Loans.	Specie.	
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Pr.ct. pr.ann.
Sept. ....	1·31	3·66	11·73	1·03	1·68	18·67	23·76	4·27	6 @ 7
Oct. ....	1·39	3·89	11·72	1·10	1·68	18·60	23·53	4·02	6½ „ 7
Nov. ....	1·37	3·91	11·85	1·02	1·68	19·42	24·21	3·94	6½ „ 7½

1859.	Philadelphia.				New Orleans.				
Sept. ....	·54	3·00	4·96	1·08	1·90	3·08	4·19	2·56	
Oct. ....	·56	3·06	5·12	1·03	1·87	3·36	4·72	2·54	
Nov. ....	·53	3·02	5·08	·96	1·91	3·63	4·98	2·45	



## BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the FOURTH QUARTER (Oct.—Dec.) 1859.

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1859.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1859. Per Cent.
31,50	Oct. 5 ....	11,01	3,46	17,02	22,11	16 July, 2½.
31,14	„ 12 ...	11,01	3,46	16,66	22,14	
30,84	„ 19 ...	11,01	3,46	16,37	22,49	
30,78	„ 26 ...	11,01	3,46	16,31	22,23	
30,75	Nov. 2 ....	11,01	3,46	16,28	22,31	
30,69	„ 9 ....	11,01	3,46	16,22	21,80	
30,71	„ 16 ...	11,01	3,46	16,24	21,47	
30,80	„ 23 ...	11,01	3,46	16,33	21,16	
30,82	„ 30 ...	11,01	3,46	16,35	21,24	
30,74	Dec. 7 ....	11,01	3,46	16,27	21,15	
30,79	„ 14 ...	11,01	3,46	16,32	20,75	
30,76	„ 21 ...	11,01	3,46	16,28	20,65	
30,61	„ 28 ...	11,01	3,46	16,13	20,83	

## BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					Assets.					Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.	DATES. (Wdnsdys.)	Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1859.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
14,55	3,74	8,53	13,27	,91	Oct. 5	11,22	19,79	9,39	,60	41,00
14,55	3,69	9,38	13,80	,90	„ 12	12,22	19,90	9,00	,61	41,72
14,55	3,12	5,49	14,01	,94	„ 19	10,87	18,32	8,35	,56	38,12
14,55	3,12	5,59	13,92	,94	„ 26	10,87	18,09	8,55	,61	38,13
14,55	3,13	5,51	14,57	,90	Nov. 2	10,87	18,81	8,44	,55	38,68
14,55	3,17	6,10	14,31	,89	„ 9	10,87	18,65	8,89	,61	39,02
14,55	3,18	6,42	14,64	,86	„ 16	10,92	18,87	9,24	,62	39,66
14,55	3,18	8,06	13,66	,81	„ 23	10,92	19,06	9,64	,65	40,28
14,55	3,13	8,68	13,36	,82	„ 30	10,92	19,38	9,58	,67	40,55
14,55	3,14	8,61	13,44	,79	Dec. 7	10,92	19,35	9,59	,67	40,54
14,55	3,14	8,94	13,64	,78	„ 14	10,92	19,40	10,04	,68	41,06
14,55	3,15	9,57	13,33	,76	„ 21	10,92	19,59	10,11	,72	41,34
14,55	3,16	9,80	13,07	,70	„ 28	10,92	19,91	9,78	,67	41,29

## CIRCULATION.—COUNTRY BANKS.

*Average amount of in Circulation in ENGLAND and WALES, on Saturday, in each Week during the FOURTH QUARTER (Oct.—Dec.) of 1859; and in SCOTLAND and IRELAND, at the Three Dates, as under.*

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4·40)	Joint Stock Banks. (Fixed Issues, 3·30.)	TOTAL. (Fixed Issues, 7·70.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2·75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6·35.)
1859.	Mlms. £	Mlms. £	Mlms. £	1859.	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £
Oct. 1	3,56	3,04	6,60							
„ 8	3,66	3,07	6,73							
„ 15	3,72	3,13	6,85							
„ 22	3,70	3,09	6,79	Oct. 22	1,54	2,66	4,20	3,55	3,70	7,25
„ 29	3,67	3,09	6,76							
Nov. 5	3,66	3,08	6,74							
„ 12	3,60	3,08	6,68							
„ 19	3,56	3,06	6,62	Nov. 19	1,69	2,82	4,51	3,61	3,83	7,44
„ 26	3,55	3,06	6,61							
Dec. 3	3,50	3,01	6,51							
„ 10	3,45	3,00	6,45							
„ 17	3,41	2,99	6,40	Dec. 17	1,72	2,87	4,59	3,53	3,87	7,40
„ 24	—	—	—							
„ 31	—	—	—							

FOREIGN EXCHANGES.—*Quotations as under, London on Paris, Hamburg & Calcutta—and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Syd- ney.	Stand- ard Silver in bar in Lon- don.  pr. oz.
	London on Paris.  3 m. d.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.  3 m. d.	Bullion as arbitrated.			India House.  60 d. s.	At Calcutta on London,  3 m. d.			
		Agnt. Engd.	For Engd.			Agnt. Engd.	For Engd.						
1859.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Oct. 1 ..	25·37 $\frac{1}{2}$	—	—	2 dis	13·6	—	0·3	110	26	24 $\frac{5}{8}$	59	1 p.	61 $\frac{3}{4}$
„ 22 ..	·37 $\frac{1}{2}$	0·1	—	1 „	·5 $\frac{3}{4}$	—	—	„	„	„	57 $\frac{1}{2}$	par	„
Nov. 5 ..	·35	0·2	—	$\frac{1}{2}$ „	·5 $\frac{1}{2}$	0·1	—	„ $\frac{1}{4}$	„	„	51	„	„
„ 19 ..	·35	0·3	—	par	·5 $\frac{3}{4}$	—	—	110	„	„	„	„	62
Dec. 3 ..	·25	0·1	—	$\frac{1}{2}$ „	·5 $\frac{1}{2}$	0·2	—	„ $\frac{1}{8}$	„	25 $\frac{1}{4}$	„	„	„
„ 17 ..	·35	0·2	—	„	·5 $\frac{1}{4}$	0·2	—	„	„	25	58 $\frac{1}{2}$	„	61 $\frac{7}{8}$
1860.													
Jan. 7 ..	·35	0·2	—	„	·5 $\frac{1}{4}$	0·3	—	110	„	„	—	„	62

QUARTERLY JOURNAL  
OF THE  
STATISTICAL SOCIETY.

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JUNE, 1860.

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TWENTY-SIXTH *Anniversary Meeting of the* STATISTICAL SOCIETY.

[Held at the Rooms of the Society, 12, St. James's Square, London, on  
Thursday, the 15th March, 1860.]

SIR JOHN P. BOILEAU, BART, F.R.S., *Vice-President, in the Chair.*

MR. NEWMARCH, one of the Honorary Secretaries, read the following Report of the Council on the Progress of the Society during the past year:—

*Report of the Council for the Financial Year ended 31st December, 1859, and for the Sessional Year ended March, 1860.*

“AT the present time (March, 1860), the number of Fellows is 357—including 70 Life Members:—against 359—including 72 Life Members—at the same date in 1859. During the twelve months now ended, the losses by resignations and deaths have been 22, and the admissions have been 20.

“The Income for the Year ended 31st December, 1859 (omitting the Banker's Balance from 1858), has been 729*l.*, and the Expenditure 743*l.* The Cash Balance to be carried to the current year, 1860, is 297*l.*—and as will be seen by the Auditor's Report, the balance of assets in favour of the Society is satisfactory.

“The Monthly Meetings have maintained their previous high character, and the attendance of Fellows and Visitors has been equal to that of former years.



The following is a List of the Papers which have been read :—

*Dr. Greenhow.*—On a Standard of Public Health for England.

*Mr. Danson.*—On a Method of Relieving the Density of Town Populations.

*Mr. Acton.*—On Illegitimacy in Marylebone, St. Pancras, and St. George's, Southwark.

*Mr. Welton.*—On the Occupations of the People of England and Wales. Part II.

*Dr. Guy.*—On the Duration of Life among Literary and Scientific Men and Artists.

*M. de Koolomzine.*—On the Universities of Russia.

*Sir F. H. Goldsmid, Bart., Q.C., M.P.*—On the Statistics of Prussia.

*Mr. David Chadwick.*—On the Rate of Wages in the Cotton District, 1839-59.

*Mr. Leone Levi.*—On the Distribution and Productiveness of Taxes, with reference to the Prospective Ameliorations in the Revenue of the United Kingdom.

*Mr. Hendriks.*—A Review of the Statistics of Spain down to the years 1857 and 1858.

“The proceedings in the Section of Economic Science and Statistics, under the able Presidency of Colonel Sykes, M.P., at the Meeting of the British Association at Aberdeen, in September last, were of more than usual interest; and the Third Meeting at Bradford, in October last, of the National Association for the Advancement of Social Science, contributed largely to advance many of those inquiries which it is the especial object of this Society to promote.

“The Government have taken measures for securing a Meeting in London in July next of the International Statistical Congress, the Third Meeting of which was held at Vienna in July, 1857, and a Committee of Organization, in which the Honorary Secretaries of this Society have been included, has been formed at the Board of Trade. The Fourth Meeting of the Congress was intended to have been held in London in the summer of 1859, but the then state of affairs on the Continent precluded the fulfilment of that design. In the event of the contemplated Congress taking place in July next, it will, doubtless, be the desire of the Council to be elected to-day, as it will assuredly be the desire of the Fellows generally, to contribute, as far as possible, to the success of so remarkable and interesting a Meeting of distinguished Scientific Men from all parts of the world.

“ Among the losses sustained by the Society by death during the past twelve months, have been Lord Macaulay, one of the founders of the Society, and the Hon. Mountstuart Elphinstone, one of its Trustees; and the Council desire to add on behalf of the general body of Fellows, their few but emphatic words of sorrow to the lamentation which has arisen on all hands at the departure of two such ornaments of our age and nation.

“ In conclusion, the Council feel themselves thoroughly justified in stating that at no former period in the history of the Society have all the various means employed by it, or of which it is the guide or centre, been in more vigorous or successful action than at the present time.”

Mr. Tottie moved, and Mr. P. L. Simmonds seconded, the Adoption of the Report, together with the Abstract of Receipts and Payments, and the Balance Sheet of Assets and Liabilities.

The Resolution was carried unanimously.

A Ballot was then taken for the election of a President, Council, and Officers for the ensuing twelve months, and the following was declared to be the List:—

#### COUNCIL AND OFFICERS FOR 1860-61.

##### *President.*

RIGHT HON. LORD JOHN RUSSELL, M.P.

##### *Council.*

Charles Babbage, M.A., F.R.S.	James Heywood, F.R.S.
James Bird, M.D.	William Barwick Hodge
Sir John Peter Boileau, Bart., F.R.S.	<i>Right Hon. Edward Horsman, M.P.</i>
Samuel Brown	<i>Leone Levi, F.S.A.</i>
William Camps, M.D.	William Golden Lumley, LL.M.
<i>David Chadwick.</i>	The Right Hon. Holt Mackenzie
Edward Cheshire	William Newmarch
William Farr, M.D., D.C.L., F.R.S.	The Right Hon. Sir John Somerset
<i>Joseph John Fox.</i>	Pakington, Bart., M.P.
Rt. Hon. Wm. Ewart Gladstone, M.P.	<i>Frederick Purdy.</i>
James William Gilbert, F.R.S.	The Right Hon. Lord John Russell, M.P.
Sir Francis Henry Goldsmid, Bart., MP.,	Right Hon. Lord Stanley, M.P.
Q.C.	John Strang, LL.D.
William Augustus Guy, M.B.	Colonel W. H. Sykes, M.P., F.R.S.
Peter Hardy, F.R.S.	<i>Major-General Sir A. M. Tulloch,</i>
The Right Hon. the Earl of Harrowby.	<i>K.C.B.</i>
Frederick Hendriks	Richard Valpy

*The names of the New Members of the Council are placed in Italic.*



*Treasurer.*

William Farr, M.D., D.C.L., F.R.S.

*Honorary Secretaries.*

William Newmarch | William Augustus Guy, M.B. | William G. Lumley.

On the motion of Mr. Newmarch, seconded by Dr. Farr, Colonel Sykes, M.P., was unanimously elected a Trustee in the room of the late Hon. Mountstuart Elphinstone.

Mr. Leone Levi moved, and the Rev. J. E. T. Rogers seconded, a vote of thanks to the retiring President, Council, and Officers.

In reply to some observations from Mr. Hammack as to the best means of promoting the prosperity and extending the usefulness of the Society, as well as of increasing its power by the addition of suitable persons to the list of Fellows :—

Mr. Newmarch said that the Council of the Society had already carefully considered this matter. It was found that the *Journal* and the meetings held in that room were deemed a full equivalent for the subscription. He hoped that, at no distant time, either by the aid of Government, or by some other means, an arrangement would be made to relieve this Society, and other similar societies, from the present dead weight expenditure in the shape of rent and other contingencies of that sort. If some such arrangement could be carried into effect as had been often spoken of, and some central building found, provided by Government, or by some arrangements amongst the societies themselves, a great saving would be effected. Meanwhile, all the Council could do was done, to make the meetings as attractive and as useful as possible. From the statement of the Treasurer, it would be seen that the Council were limited by want of funds in their desire to set on foot extensive branches of inquiry, for it had always appeared to the Council to be their first duty to protect the credit of the Society in its pecuniary arrangements. Such being the case, he did not know that there was any other course open, except that each of them should exert himself in his sphere, and do what he could to increase the number of Fellows and the usefulness and attractiveness of its meetings.

The Chairman said he was extremely glad that this conversation had taken place, and that there was only a loss of two on the list of Fellows for the year, and here were the proposal papers of no fewer than six candidates then before him in the room. There was, certainly, one means which they might all use individually. They were not all equally talented in preparing such papers as would be of interest to the Society, but they might introduce



the Society to the notice of intelligent friends suitable to become Fellows, and show them the benefit to be derived from attendance at the meetings, and from the perusal of the *Journal*. Amongst the incidental benefits of the Society, he might mention the Tooke Professorship of Economic Science and Statistics, established at King's College, London, as emanating from them. It had been a success. There was a very good class of scholars attending the instruction of the able gentleman who had been elected to the professorship. They had a right to expect that the prospect of such an aggregation of statisticians from all parts as was about to assemble in London this year at the International Congress, would attract many intelligent men to join their ranks.

The proceedings then closed with a vote of thanks to the Chair.

The following is the Report of the Auditors:—

“ The Auditors appointed to examine the Accounts of the Statistical Society for the year 1859, herewith

“ REPORT :—

“ That they have carefully compared the Entries in the Books with the several Vouchers for the same, from the 1st January to the 31st December, 1859, and find them perfectly correct; showing the Receipts (including a Balance of 311*l.* 5*s.* 7*d.* from 1858) to have been 1,040*l.* 6*s.* 1*d.*, and the Payments 743*l.* —*s.* 10½*d.*, leaving a Balance in favour of the Society of 297*l.* 5*s.* 2½*d.*

“ They have also had laid before them an Estimate, made by the Council, of the Assets and Liabilities of the Society, the former amounting to 1,885*l.* 5*s.* 2*d.*, and the latter to 128*l.* 1*s.* 1*d.*,—showing a Balance in favour of the Society of 1,757*l.* 4*s.* 1*d.*

“ In presenting this Report, they cannot but express their gratification at the improved method of keeping the List of Members, forming, as it does, the basis of the amount of subscriptions due in the year, the Deaths and Resignations of Members being certified by the Council. They have thus been enabled to correct the printed List of Members of the Society on the 31st December, 1859, and to certify it for the use of future Auditors.

(Signed)

“ SAMUEL BROWN,	} <i>Auditors.</i> ”
“ H. B. HYDE,	
“ CORNELIUS WALFORD, junr.	

*London, 2nd February, 1860.*

The statement of Receipts and Payments, and Assets and Liabilities, is as follows:—



A REVIEW of the STATISTICS of SPAIN down to the Years 1857 and 1858 ; chiefly founded on the SPANISH CENSUS RETURNS of those Years. By FREDERICK HENDRIKS.

[Read before the Statistical Society of London, 21st February, 1860.]

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I.—Introductory Remarks.

It may be unhesitatingly affirmed that reliable Statistics of Spain are a great desideratum to students of the general history of civilization in Europe. After considering the peculiarly shifting nature of the political condition of the Peninsula, and the confusion, both administrative and social, through which it had to struggle for a protracted period—almost down to the verge of the present time—such students will view as a hopeful and welcome sign of improvement, any indications of a change from what had long come to be looked upon as the normal state of retrogression of one of the most naturally rich and fertile countries of the continent.

Disturbing causes have hitherto been too predominant in Spain to allow of correct statistics being attainable. The ordinary and scientific methods of investigation were tardily introduced into Spain, and in the absence of these, even the best informed political geographers and statisticians had to rely upon many figures of doubtful authenticity. Circumstances, too, which it is needless to discuss, had much shaken the confidence of the world at large in almost every statement where Spain had to support an averment by reference to numbers or statistics, particularly, of course, where money was concerned.

Spain had herself to blame for this unsatisfactory state of things. It was the fault, however, of individuals and rulers who have been superseded by a superior class of administrators, rather than of the Spanish people themselves. Gifted as the latter have always been with many excellent qualities, and located on a soil, and with a



climate, of the most superior order, famous as such even in the days of Roman Consulate and Empire—it might have been safely predicted that an awakening to a consciousness of capability for improvement would certainly occur, and that, amongst its first fruits would be those results which recent statistics *now* show are accomplished facts, viz.:—that order should reign, that physical prosperity should advance, and that their country should again assert that rank amongst nations to which its natural resources and the character of its people fairly entitle it.

The improvements in modern science have been busily at work in Spain of late years, developing the riches of her soil, improving the social condition of her people, and advancing her commerce even in spite of adherence to some principles which, from an English point of view, are erroneous. The strides in her march of improvement may not have been quite so rapid as in some other countries, but they are not less surely marked, in fact, so much so, that nearly all which has been recorded on Spanish subjects as illustrated by statistical evidence, will have to be re-written. It remains to be explained how a revolution has taken place in this regard, and how it is that in a department of knowledge where all was confusion, the precise contrary bids fair to be the pleasing change.

This is perhaps best accounted for by the Spanish authorities themselves, and entirely turns on the circumstance that, within the last few years, a competent Statistical Commission with effectual powers of action, has for the first time been established. The Spanish government appear to have treated this Commission with liberality, and the expenditure for its objects will doubtless redound to the national advantage in manifold ways.

The Count de Ripalda, as the delegate of the Spanish Government at the International Statistical Congress held at Vienna, in September, 1857, spoke with some just pride upon the revival of a taste for statistical order and science in Spain. He declared that the country of Alphonso, of Cortez, and of Lopez de Vega, still associated itself intuitively with all that is good, great, and civilizing, and, that although secluded by Providence into a corner of Europe, it is making greater efforts than the world may suppose, to place itself on the level of the most advanced civilization.

Count de Ripalda remarked that, so early as the fourteenth century Peter the Ceremonious, King of Arragon, had made a census of his renowned but not extensive kingdom. This had recently been published by the government, amongst the inedited documents of the Archives of Arragon. In the fifteenth century an enumeration of the people was ordered by the Crown of Castile. This was published at Madrid by order of the government. In the eighteenth century the King (through the medium of the celebrated minister Count

Florida Blanca) ordered the general census of population which was published at Madrid in 1787. In 1797 also, a general census was taken, and published in 1801. Other estimates likewise existed, either in the archives of the Council of Castile, or in the Courts of Exchequer or of Justice, but a general plan (by which Count de Ripalda doubtless means a well digested, scientific, and reliable method) was not in existence on any of the occasions adverted to. Happily, circumstances had changed, and, upon His Excellency Marshal the Duke of Valencia entering upon the Presidentship of the Ministry, one of the first solicitudes of the government of Her Catholic Majesty had been, in the midst of most difficult circumstances, to obtain as complete a statistical record as possible. The Queen's commands were, that the President of the Council of Ministers, the Duke of Valencia, should also be the acting President of the Central Commission of Statistics, and that in the provincial or departmental commissions should be included the most notable persons of the country, without regard to political opinions. The country itself gave a worthy response to this appeal of the government. Instead of opposing difficulties, as might have been feared considering that the people always apprehend seeing an increase of taxation, or of the contingent it has to furnish for the recruiting of the army, as the result of an ascertainment of the growth of riches or of population; the Spanish nation, on the contrary, inspired by national pride, not only seconded the views of the government, but often did even more than was asked of it.

It appears that on the occasion of the census of May, 1857, thus referred to, the returns were given in with such unlooked-for exactness, that the government was encouraged to proceed further. It accordingly sent circulars to the local authorities in July, 1857, requesting the filling up of schedules in much greater detail, acknowledged to be difficult in a country which like Spain had theretofore no regular system for the collection of statistics.

The results of these further statistical enquiries were only in process of ascertainment at the time when Count de Ripalda addressed the International Statistical Congress at Vienna. He felt himself, however, justified in announcing that they would be as satisfactorily carried out as the census. Since then we have the evidence of this in the volume of Spanish Statistics printed last year (1859), at Madrid, in a most elegant and creditable form. The Statistical Commission, and indeed the whole Spanish Nation, have substantial grounds for congratulation on the publication of a work so eminently conducive to national welfare as the "*Anuario Estadístico de España*," correspondiente al Año de 1858, publicado por la Comision de Estadística General del reino (Madrid, imprenta Nacional, 1859, 8vo., pp. 12 and 712).



Count de Ripalda explained at Vienna, in 1857, the manner in which the Central Commission had set about its labours. It is desirable to repeat it upon the present occasion, for, necessary as it is to ascertain the standard of authenticity in all national statistics, it is pre-eminently so in those of Spain, which has but so recently followed the example set by the countries of Western Europe, and particularly by England and France, in this respect.

The Central Commission, being presided over by the President of the Council of Ministers, has consequently the right of demanding returns from all the ministries. The Commission includes former Ministers of the Crown, and the directors of the departments most nearly connected with statistical subjects. To this central Commission is entrusted the ultimate arrangement, supervision, and publication.

In each of the forty-nine provinces or departments, a permanent Commission has been erected under the immediate presidency of the prefect (*Gobernatore*), to supervise and analyse the provincial returns.

Each province is subdivided into *partidos* or seats of tribunals of first appeal, and in each of these *partidos* there is a Statistical Commission presided over by the Judge of first appeal, who is to keep watch over the accuracy of individual returns, and to make the first analysis of them. These Commissions are composed of the largest proprietors, of the administrative authorities, and of the functionaries entrusted with the departments of Commerce and Public Instruction, such persons being considered the most capable of verifying the accuracy of the returns, the correctness of facts, and the accidental nature of errors.

Count de Ripalda submitted that, all this evinced that Spain is now in the right path, and that if it should please Providence to grant a little tranquillity and stability, complete enough statistics would then shortly be obtainable for the government of Her Majesty to be in a position to found, upon solid bases, the ameliorations it was contemplating and wishing for, and which would afford foreigners a more exact notion of Spain than they generally entertain.

Prompted by this laudable desire to disseminate information, Count de Ripalda (who, it may be observed, is a foreign honorary member of our Statistical Society, a member of the Spanish Central Statistical Commission, and President of the Academy of Valencia,) has forwarded to the library of the Society a copy of the *Anuario* before mentioned, and also the two volumes comprising the details of the Spanish census of 1857. The writer of the present paper would be glad to further the desire referred to, at a time when, like the present, correct ideas of the position of Spain are of national importance. He has therefore undertaken with pleasure a task of condensed analysis, rearrangement and review, which, however inade-



quately performed, may at least serve the useful end of indicating, to some men of science and influence connected with the Statistical Society, that the statistical evidence of the progress of Spain is of an extremely cheering character, and that a country upon which in times past England expended much, and in aiding which she devoted many lives, is at last showing a sense of what it can do for itself by "moving a-head."

## II.—*Statistics of Population, 1594 to 1857.*

It is considered of importance by the statisticians of Spain, and certainly it will be so likewise by those of other countries, to revert to the earliest Census taken in 1594, as a starting-point for comparison with the censuses of modern date. In fact, it is of considerable utility, as matter of information, to have some of the details of the first census before us. It has not unfrequently been advanced that the population of Spain amounted to 20 or 21 millions in the sixteenth century. This was the statement of writers who had fabulous accounts to give of its then flourishing condition in commerce, manufactures, and agriculture. Upon the question of population at that period, we may more safely take the estimate at something under  $8\frac{1}{4}$  million souls, and as regards the erroneously exaggerated statements of its industrial supremacy, it will be well to remember that, so long ago as in 1807, Don Antonio de Capmany, a writer of the highest authority on Spanish history, commerce, &c.—adduced evidence in disproof.

The Census of 1594, gave 6,701,100 as the population of forty divisions of the country, under the Crown of Castile, but did not include an enumeration of all the divisions. About one-seventh of them were omitted, and in the annexed Table, following the Spanish Statistical Commission, the numbers for the seven last-named provinces and divisions are given approximately from the nearest enumerations at other dates, viz.:—Biscay in 1708, Guipuzcoa in 1558-59, Alava in 1599, Navarre in 1553, Arragon in 1495 and 1609, Valencia in 1609, and Catalonia in 1553. The population thus brought to the reckoning for these districts, does not however amount to quite one-fifth of the aggregate population, and there is good ground for assuming that as a whole, the enumeration is a fair average one as at the latter end of the sixteenth century.

## (A.)—CENSUS of SPAIN in 1594.

Provinces and Divisions.	House-holds.	Souls.	Provinces and Divisions.	House-holds.	Souls.
Burgos .....	59,634	298,170	Province of Castile } of the Order of } Santiago .....	25,908	129,540
Trasmiera .....	25,398	126,990	Alcaraz .....	6,685	33,425
Lands of the Constable ...	11,134	55,670	Campo de Montiel .....	7,058	35,290
Soria .....	38,234	191,170	Murcia.....	28,470	142,350
Valladolid .....	40,024	200,120			
Lands of the Count of } Benavente .....	15,581	77,905			
Leon .....	48,364	241,820	Cuenca .....	47,080	235,400
Asturias of Oviedo.....	33,031	165,155	Huete .....	18,288	91,440
Ponferrada .....	15,715	78,575	Trujillo .....	80,426	402,130
Lugo .....	32,015	160,075	Province of Leon, of } the Order of San- } tiago.....	31,952	159,760
Corunna and Betanzos ...	13,287	66,435	Seville .....	114,738	573,690
Orense.....	34,456	172,280	Cordova .....	46,209	231,045
Mondonedo .....	7,330	36,650	Jaen.....	45,757	228,785
Santiago .....	25,739	128,695	Calatrava de Andalucia	9,927	49,635
Tuy .....	12,881	64,405	Granada .....	71,904	359,520
Zamora .....	20,313	101,565	Vizcaya (in 1708) .....	11,229	56,145
Toro.....	10,624	53,120			
Palencia .....	40,728	203,640	Gupuzcoa (in 1558-59)	13,933	69,665
Salamanca .....	64,330	321,650	Alava (in 1599) .....	12,139	60,696
Avila .....	37,756	188,780	Navarre (in 1553) ...	30,833	154,165
Segovia .....	41,413	207,065	Aragon (in 1495 and } 1609 .....	70,984	354,920
Guadalajara.....	37,901	189,505	Valencia (in 1609) .....	97,372	486,860
Madrid .....	31,932	159,660	Catalonia (in 1553).....	54,548	322,740
Toledo .....	52,030	260,150			
Ciudad-Real .....	2,049	10,245			
Campo de Calatrava .....	19,366	96,830			
Mesa Arzobispal de Toledo	34,653	173,265	Total .....	1,641,358	8,206,791

It does not appear that any authentic estimates of the Spanish population were made between 1594 and towards the end of the eighteenth century. A Census was taken in 1787, and on that occasion the results were also published of an estimated enumeration made in 1768-69. The next census was taken in 1797, and this was the last professedly bonâ fide enumeration until the very recent general census of the population of Spain, on the 21st May, 1857. In the intervening period of sixty years, certain estimates of the number of inhabitants in each province were set forth in the royal decrees of the years 1833, 1846, and 1850, even the approximate correctness of which it is at least allowable to question when we notice that whilst the population in the royal decree of 1846, is set down at about 12,163,000, and whilst the real census enumeration in 1857, or eleven years after, makes it about 15,464,000, the intermediate estimate in the royal decree of 1850, reduced it so low as about 10,942,000.

If all the figures be assumed as equally worthy of credit, we should have the following data for comparison:—



## (B.)—EIGHT ENUMERATIONS of SPANISH POPULATION (1857-1594).

Population in 1857 .....	15,464,000
„ 1850 .....	10,942,000
„ 1846 .....	12,163,000
„ 1833 .....	12,287,000
„ 1797 .....	10,541,000
„ 1787 .....	10,268,000
„ 1768-9 .....	9,160,000
„ 1594 .....	8,207,000

These figures would tend to show, as regards the ninety years 1768-1857, that the population of Spain has been subject to singular alternations; first, of almost complete stand still between 1787 and 1797—then of slow increase, coupled, doubtless, with periods of retrogression during the eventful thirty-six years, 1797-1833—next of positive decline in the thirteen years, 1833-46—again, of much graver decline in the four years, 1846-50—finally, of most marked and extraordinary increase in the last period of seven years, ending in May, 1857.

The figures of 1857 quite upset the estimate of 1850, and upon the ordinary rules of induction would lead us to discard any of the estimates in the royal decrees of 1850, 1846, and 1833, and would prompt us to fall back upon the last two censuses of 1797 and 1857, respectively, as the most recent enumerations admitting of legitimate comparison. In the course of the present remarks no further mention will have to be made of the figures of 1850, 1846, or 1833, and in order to confine ourselves as much as possible to the most *recent scientific* and *authentic statistics* of Spain, viz.:—those of the years 1857 and 1858—no reference to figures of earlier date will be made, except upon some two or three points where it is important and interesting to do so.

It is of course *impossible* in the comparatively narrow limits of this Paper to present many of the results of the Spanish census of 1857, in a very detailed form, and with the exception of the statements which will immediately follow respecting the *distribution of population*, collective results for the whole of Spain will be given without entering into the details for the several provinces.

(C.)—TERRITORIAL EXTENT *and* DENSITY of POPULATION (1857).

The *superficial extent* of Spain in square leagues (20 to the degree) was 16,356, equal in square kilometres to 507,036, or in *square English miles* to 195,782.

Given, therefore, the number of inhabitants at 15,464,340, we have the following



*Proportion of Inhabitants to Superficial Extent.*

To each square league .....	945·48
„ kilometre .....	30·499
„ English mile.....	78·988

It appears that the most densely-peopled province was *Pontevedra*, containing 2951·73 to a square league, 95·217 to a square kilometre, or 246·592 to a square English mile. And the most thinly peopled province was *Ciudad Real*, with 373·02 to a square league, or 12·033 to a square kilometre, or 31·162 to a square English mile.

If the superficial *extent* of Spain be compared with that of this country, it will be found that Spain is about  $3\frac{1}{3}$  times as large as England and Wales, about  $2\frac{1}{3}$  times as large as Great Britain, and about  $1\frac{3}{5}$  times as large as Great Britain and Ireland. On the other hand the *population* of Spain is about one-seventh smaller than that of England and Wales, about one-fourth smaller than that of Great Britain, and about one-half smaller than that of Great Britain and Ireland.

The *density of population* in Spain, was, on the average, about one-fourth of that of England and Wales, and about one-third of that of Great Britain. The most densely peopled province in Spain was about one-sixth less peopled than the *average* population of all England, and is probably now only just about equal to the *average* for all Great Britain.

(D.)—POPULATION in EACH PROVINCE (1857). *Number of Inhabitants in each Province, arranged in order of Populousness, and distinguishing the Number of each Sex.*

Order.	Province.	Males.	Females.	Total Inhabitants.
1	Barcelona .....	362,778	350,956	713,734
2	Valencia .....	305,765	300,843	606,608
3	Corunna .....	248,162	303,827	551,989
4	Oviedo.....	239,567	284,962	524,529
5	Madrid.....	251,147	224,638	475,785
6	Seville .....	238,469	225,017	463,486
7	Malaga .....	226,012	225,394	451,406
8	Granada .....	224,861	219,768	444,629
9	Pontevedra .....	181,754	247,132	428,886
10	Lugo .....	198,040	226,146	424,186
11	Badajoz .....	207,723	197,258	404,981
12	Cadiz .....	206,953	183,239	390,192
13	Zaragoza .....	195,058	189,118	384,176
14	Murcia.....	191,654	189,315	380,969
15	Alicante .....	185,296	193,662	378,958
16	Orense.....	178,702	193,116	371,818
17	Cordova .....	175,626	175,910	351,536
18	Leon .....	170,352	178,404	348,756
19	Jaen.....	176,183	169,696	345,879
20	Burgos.....	167,662	165,694	333,356

(D.)—*Contd.*—POPULATION in EACH PROVINCE.

Order.	Province.	Males.	Females.	Total Inhabitants.
21	Toledo .....	167,991	160,764	328,755
22	Tarragona .....	159,342	161,251	320,593
23	Almeria .....	154,767	160,897	315,664
24	Gerona .....	155,464	155,506	310,970
25	Lerida .....	155,368	151,626	306,994
26	Caceres .....	153,590	148,544	302,134
27	Navarre .....	150,614	146,808	297,422
28	Salamanca .....	133,087	130,429	263,516
29	Baleares .....	128,237	134,656	262,893
30	Castellon .....	129,606	131,313	260,919
31	Huesca .....	132,543	125,296	257,839
32	Zamora .....	124,402	124,760	249,162
33	Ciudad-Real .....	122,030	122,298	244,328
34	Valladolid .....	125,033	118,990	244,023
35	Teruel .....	119,245	119,383	238,628
36	Canarias .....	106,173	127,873	234,046
37	Cuenca.....	114,975	114,984	229,959
38	Santander .....	100,965	113,476	214,441
39	Albacete .....	100,650	100,468	201,118
40	Guadalajara.....	101,443	97,645	199,088
41	Palencia .....	94,062	91,908	185,970
42	Huelva.....	88,720	85,671	174,391
43	Logrono .....	86,430	87,382	173,812
44	Avila .....	82,746	81,293	164,039
45	Vizcaya .....	77,497	83,082	160,579
46	Guipuzcoa .....	77,060	79,433	156,493
47	Soria .....	72,219	75,249	147,468
48	Segovia .....	74,894	71,945	146,839
49	Alava .....	50,016	46,382	96,398
	Total .....	7,670,933	7,793,407	15,464,340

(E.)—*Statistics of* TOWN POPULATION (1857).

The limits of this paper will not admit of a recapitulation of the population of the *Chief Towns* of Spain. It is worthy of notice that there are only *four towns* in the whole Kingdom whose population exceeds 100,000. These are *Madrid*, with 281,170 inhabitants (142,232 males and 138,938 females); *Barcelona*, with 183,787 inhabitants (93,982 males and 89,805 females); *Seville*, with 112,529 inhabitants (56,891 males and 55,638 females); *Valencia*, with 106,435 inhabitants (52,515 males and 53,920 females).

In the year following the Census, viz.:—in 1858, a volume of a supplementary character to the census return, and called the “*Nomenclator*,” was published, giving the details for each separate, small, or great district of enumeration. A table of the groupings of population has been deduced from these details, and, without going into details for each province, it may be useful to give the results in a

concise form, so as to admit of comparison with similar returns for other countries :—

*Groups of Population.*

Places having from	12 to	50 inhabitants, are in No.	18,633
„	50 „	200	16,753
„	200 „	1,000	10,031
„	1,000 „	2,000	1,624
„	2,000 „	4,000	740
„	4,000 „	10,000	341
„	10,000 „	20,000	72
„	20,000 „	40,000	16
„	40,000 „	70,000	5
„	70,000 „	100,000	1
„	100,000 „	150,000	2
„	150,000 and upwards	„	2
Total.....			<u>48,220</u>

(F.)—INDIVIDUALS EXEMPT *from* PUBLIC BURDENS, 1768-9.—*Statistics of the OCCUPATIONS of the PEOPLE, 1768-9 to 1857.*

	No.		No.
In the royal service .....	89,993	In the inquisition .....	2,645
In the royal treasury .....	24,577	Nobility .....	722,794
In the royal orders of knight- hood .....	4,248	Total .....	<u>844,257</u>

These numbers give a proportion of about 1 in 11 of the entire population.

(G.)—PUBLIC EMPLOYEES (*Empleados*) in 1787.

	No.		No.
Royal service .....	36,465	Collectors of convent alms } ( <i>sindicos</i> ) .....	4,127
Under military law .....	77,884	Dependents of knightly orders	1,844
Dependents of the inquisition....	2,705	Total .....	<u>123,025</u>

(H.)—PUBLIC EMPLOYEES (*Empleados*) in 1797.

Royal service .....	27,243
Inquisition .....	3,078
Knightly orders .....	1,660
Military .....	149,340
Total .....	<u>181,321</u>

The classification of public employes in 1857, is so different, that no immediate comparison can be made with the preceding figures for earlier periods. The Statistics for 1857, are arranged, as might be expected, in great detail, and in the next section (under head of



Occupations of the People) we have a very condensed grouping of the results.

(I.)—OCCUPATIONS of the People\* (1857).

Proprietors of rural properties .....	2,433,301
„ of urban „ .....	1,807,899
Farmers .....	595,635
Graziers .....	840,528
Total .....	5,677,363

In the above table, it must be understood that the same individuals may be included in two, three, or in all four of the above categories.

The following were the numbers of individuals scheduled for payment of the *Industrial and Commercial Contribution* or Licensing Tax, in 1857.

Persons in industrial pursuits .....	148,043
„ commercial „ .....	119,234
Professors of sciences.....	35,736
Artists and artisans .....	88,728
Manufacturers .....	67,327
Total .....	459,068

EMPLOYES (in 1857).	Number of Persons.	Total Annual Salaries.
		£
Ministerial .....	22,362	1,566,000
Provincial (and paid from provincial fund) .....	4,693	170,000
Municipal „ municipal „ .....	62,976	841,000
Total .....	90,031	2,577,000

(K.)—PENSIONERS paid in the Provinces and by the Central Treasury in Madrid (1857).

No.	Class.	Annual Charge.
		£
3,485	Pensioners (rewarded) .....	45,000
6,822	Regular clergy, uncloistered .....	125,000
295	Members of foreign disembodied legions .....	6,000
1,239	Convenidos de Vergara .....	5,000
6,461	Military Monts de Piété pensioners .....	208,000
5,882	Civil „ „ „ .....	194,000
19,939	Military and naval „ „ .....	504,000
1,713	Superannuated ( <i>Jubilados</i> ) in all the ministries .....	199,000
3,509	„ ( <i>Cesantes</i> ) „ „ .....	177,000
49,345		1,463,000

\* Exclusive of the Basque Provinces and Navarre.

(L.)—GRANDEES of SPAIN and TITLED PERSONAGES,\* according to the *Guia de Forasteros* for the year 1859.

Ranks.	First Class.	Second Class.	With Personal Grandee-ship.	With Honorary Grandee-ship.	Without Grandee-ship.	Total.
Dukes .....	56	5	18	—	2	81
Marquises .....	29	10	15	6	615	675
Counts .....	30	10	16	4	479	539
Viscounts .....	—	—	—	—	73	73
Barons .....	1	1	—	—	59	61
<i>Foreign titles.</i>						
Princes .....	1	—	—	—	1	2
Dukes .....	—	—	—	—	1	1
Marquises .....	—	—	—	—	14	14
Counts .....	1	—	—	—	6	7
Viscounts .....	—	—	—	—	1	1
Barons .....	—	—	—	—	2	2
	118	26	49	10	1,253	1,456†

## (M.)—CONJUGAL CONDITION of the People in 1768-9.

Whole population ..... 9,159,999

Of whom :—

Married, Males ..... 1,724,567

,, Females ..... 1,714,505

3,439,072

Unmarried, Males ..... 2,809,069

,, Females ..... 2,911,858

5,720,927

As no mention was made of Widows or Widowers in the census of 1768-9, it is presumed by the Spanish authorities that they were included amongst the unmarried (*solteros*, single).

\* Legally entitled to use their respective dignities in accordance with the Royal Decree of 28th December, 1846, and the Royal Instruction of 14th February, 1847.

† The number of titled nobility in the year 1789 was 664, viz., 129 grandees, of whom some possessed several titles; and 535 marquises, counts, and viscounts.

## (N.)—In 1787.

Whole population .....	10,268,150	
Of whom :—		
Married, Males .....	1,947,165	
„ Females .....	1,943,496	
		3,890,661
Unmarried, Males .....	2,926,229	
„ Females .....	2,753,224	
		5,679,453
Widowed, Males .....	235,778	
„ Females .....	462,258	
		698,036

## (O.)—In 1797.

Whole population .....	10,541,221	
Of whom :—		
Married, Males .....	1,986,600	
„ Females .....	1,982,895	
		3,969,495
Unmarried, Males .....	3,003,832	
„ Females .....	2,926,337	
		5,930,169
Widowed, Males .....	229,867	
„ Females .....	411,690	
		641,557

## (P.)—In 1857.

Whole population .....	15,464,340	
Of whom :—		
Married, Males .....	2,784,057	
„ Females .....	2,790,485	
		5,574,542
Unmarried, Males .....	4,521,453	
„ Females .....	4,307,166	
		8,828,619
Widowed, Males .....	364,901	
„ Females .....	695,702	
		1,060,603
		15,463,764
Unclassified, in the Canaries, &c. ....	576	
		15,464,340

A few interesting subjects of inquiry suggest themselves from the preceding four returns.

1. As to the *Comparative Proportion of the Sexes in Spain*.

It may be said that, in round numbers, the number of males to



females in the whole population, young and old, married, single, and widowed, was:—

In 1768-9.....	100	Males to	102	Females
„ 1787.....	100	„	101	„
„ 1797.....	100	„	102	„
„ 1857.....	100	„	102	„
And the proportion in England and Wales in the year 1851 was .....	100	„	104	„
And in Scotland in 1851 .....				
	100	„	110	„

## 2. As to the *Comparative Proportion of Married to Unmarried in Spain.*

In 1768-9, Married Males and Females	38	to each	100	of the population
„ 1787	„	„	38	„ 100 „
„ 1797	„	„	38	„ 100 „
„ 1857	„	„	36	„ 100 „
And the proportion in Great Britain in the year 1851, was .....	„	„	33	„ 100 „

## (Q.)—CLASSIFICATION of POPULATION according to AGE (1857).

Aged.	Total Population of Spain.	Aged.	Total Population of Spain.
Under 1 year .....	434,355	From 71 to 80 years .....	188,630
From 1 to 7 years .....	2,542,839	„ 81 „ 85 „ .....	26,802
„ 8 „ 15 „ .....	2,522,922	„ 86 „ 90 „ .....	11,047
„ 16 „ 20 „ .....	1,405,698	„ 91 „ 95 „ .....	2,204
„ 21 „ 25 „ .....	1,266,911	„ 96 „ 100 „ .....	1,161
„ 26 „ 30 „ .....	1,478,822	Upwards of 100 „ .....	186
„ 31 „ 40 „ .....	2,291,934		15,464,078
„ 41 „ 50 „ .....	1,544,790	Unclassified as to age (in- habiting the Canary Islands) .....	262
„ 51 „ 60 „ .....	1,120,336		
„ 61 „ 70 „ .....	625,441		15,464,340

The Census taken in 1857, has been the means of showing the distribution of Ages in each of the forty-nine provinces of Spain. It would, obviously, be incompatible with the limits of the present review to insert these figures in *extenso*. We restrict ourselves to observing that the number of inhabitants aged above 100 years, is greatest in the province of Cadiz, where there were 20; next in the province of Murcia, 19; whilst in Malaga there were 16, and in Almeria 14. The next greatest number of centenarians was in the province of Seville, 9; and in the remaining forty-four provinces the number varied from 7 to none at all.

(R.)—PROPORTIONATE AGES of the POPULATION of Spain (1857).

The Spanish returns do not contain any estimate of these proportions from the figures. In fact it should be understood that they include scarcely any digests of the figures in the shape of per centages. It has been considered desirable in carrying out the purposes of the present paper, to calculate the annexed table from the data in the preceding section.

*Ages, 1857.—Proportions to every 100,000 of Population (Spain).*

	Persons.		Persons.
Aged under 1 year there were....	2,810	Aged from 61 to 70 years	.... 4,044
Aged from 1 to 7 yrs. ,,	.... 16,440	,, 71 ,, 80 ,,	.... 1,220
,, 8 ,, 15 ,,	.... 16,320	,, 81 ,, 85 ,,	.... 173
,, 16 ,, 20 ,,	.... 9,090	,, 86 ,, 90 ,,	.... 71
,, 21 ,, 25 ,,	.... 8,190	,, 91 ,, 95 ,,	.... 14
,, 26 ,, 30 ,,	.... 9,560	,, 96 ,, 100 ,,	.... 7
,, 31 ,, 40 ,,	.... 14,820	Aged upwards of 100 ,,	.... 1
,, 41 ,, 50 ,,	.... 10,000		
,, 51 ,, 60 ,,	.... 7,240	Total.....	<u>100,000</u>

This table affords a ready means of comparing the ages of the Spanish population with those of the British population. The following is the comparison, and it shows that the distribution of the ages of the population approaches with considerable nearness in the two countries. There are, in proportion, more young people under the age of 20, in Great Britain than in Spain, viz.:—45·118 per cent., as compared with 44·660 per cent.; and similarly there are more people in advanced life, that is aged 60 and upwards, in Great Britain, than in Spain, viz.:—7·291 per cent. as compared with 5·530 per cent. The balance is made up by the proportion of persons between the ages of 20 and 60, that is in mature and middle age, being larger in Spain than in Great Britain, as 49·810 per cent. is to 47·591 per cent.

Ages.	Spanish Population, 1857.	Population of Great Britain, 1851.
	Per cent.	Per cent.
Under 20 years .....	44·660	45·118
Between 20 and 40 years .....	32·570	30·946
,, 40 ,, 60 ,, .....	17·240	16·645
,, 60 ,, 80 ,, .....	5·264	6·678
80 years and upwards.....	·266	·613
	100·000	100·000

There is still a radical defect in Spanish population statistics, namely, the *entire absence of any publication of the births, deaths,*

and marriages, to say nothing of sanitary statistics. The sooner the records are removed from the care of the priests to that of the civil power, the better will it be for statistical science in Spain.

### III.—Territorial and Agricultural Statistics,\* 1857-8.

#### (A.)—PROPORTION of CULTIVATED to Uncultivated LAND.

Superficial extent of Land in <i>Fanegas</i> .....	75,991,623
„ „ under cultivation.....	41,217,138

The percentage of Land under cultivation, averages 54·2 per cent. for the whole of Spain; the *minimum* being 10 per cent. in the province of Santander; the *maximum*, 99 per cent. in the province of Palencia.

(1.) <i>Fanegas</i> of Land under irrigation * ....	1,786,025
(2.) „ dry arable † .....	39,431,113
	<hr/>
	41,217,138

#### Irrigated land (1), how cultivated:—

Land under tillage ( <i>tierras de labor</i> ) ....	1,370,090
As Vineyards.....	67,347
As Olive grounds .....	74,618
As Pasture lands .....	273,970
	<hr/>
Total <i>Fanegas</i> as above *) ....	1,786,025

#### Dry land (2), how cultivated in 1858:—

Land under tillage ( <i>tierras de labor</i> ) ....	18,880,540
As Vineyards.....	2,070,640
As Olive grounds .....	1,256 886
As Pasture lands .....	10,367,505
Woods and copse .....	6,810,591
Gardens and quarries .....	44,951
	<hr/>
Total <i>Fanegas</i> (as above †) ....	39,431,113

The measure here used is the *fanega de marco real* of 9,216 square varas. There exists some difficulty in ascertaining which square vara is here meant. Assuming it, however, to mean the Castilian square vara, one of which is equal to 7·7388 English square

\* The statistical data respecting lands in cultivation (as well as those having reference to some other details of the distribution of territory and of the occupations of the people), proceed from the *Direccion General de Contribuciones* of the Ministry of Finance. It appears that the system of taxation, excepting as regards mining property, does not extend to the Basque Provinces nor to Navarre. The figures for these parts of the country are, therefore, not included in the returns above given, nor in certain others hereafter quoted and in which this is also duly noted.



feet, the *fanega de marco* real would equal 71320·8 English square feet, or 1·6373 English acre. If this estimate be correct, the land under cultivation in Spain would appear to have been 67,484,820 English acres, in 1857 an extent larger by upwards of one-fifth than the whole superficial area of Great Britain, and about equal to 3½ times the acreage of Ireland.

It is much to be regretted that no agricultural statistics for Great Britain exist. There is some hope that the government may yet be induced, on the occasion of the approaching decennial census of 1861, to take measures for their collection.

To enable, however, some comparison to be made between the relative proportions of cultivation and uncultivation, the following Table, constructed from the data in this section as regards Spain in 1857, and from the recent returns of Agricultural Statistics for *Ireland* in 1858, may be found of some utility.

Classes of Lands.	SPAIN in 1857.	IRELAND in 1858.
	Proportions to Whole Area.	Proportions to Whole Area.
	Per cent.	Per cent.
Uncultivated land .....	45·8	23·3
Land under tillage .....	26·6	29·2
Grass lands .....	14·0	46·0
Woods, copse, gardens, &c.	9·0	1·5
Vineyards .....	2·8	—
Olive grounds .....	1·8	—
	100·0	100·0

CULTIVATION OF THE VINE IN SPAIN.—The total superficies of ground cultivated as vineyards was (in 1857), 2,137,987 fanegas, equal at 1·6373 acres per fanega, to 3,500,524 acres. The corresponding acreage under vine cultivation in *France* was, in the same year, 5,387,230. The statistical returns for France state the produce, those for Spain unfortunately do not. The value of wine exported from Spain in 1857, was about 4,600,000*l.*;\* that of wine exported from France in the same year, about 6,000,000*l.* These Custom House returns do not however reveal the whole facts. The ravages of the *oidium* or vine-disease were so disastrous in France during the last few years, that the French government ceased to levy import duties on Spanish wines. The result was that the importation of wine from Spain into France, increased as follows, according to the Spanish official returns, and which Mr. Savile

\* See *Commercial Statistics* xiii (D), post.

Lumley, Her Majesty's Secretary of Legation at Madrid, believes understate the real amount exported:—

*Wine Exported from Spain to France.*

	Years.	Pipes.	Value.
	1850 .....	No. 1,506	£7,006
	51 .....	1,196	14,082
	52 .....	1,272	5,198
	53 .....	7,036	55,272
	1854 .....	3,681	50,403
	55 .....	18,335	407,181
	56 .....	42,491	301,651
	57 .....	100,392	663,661

This vastly increased importation of Spanish Wine into France, doubled and even trebled the prices in several of the Spanish provinces, and enriched the wine growers to an extraordinary extent. The particular point, however, to which it is desired to draw attention, *à propos* of the preceding statistics, is, that the exportation of Spanish wine in 1857, was really equal in value to the exportation of French wine in the same year; for—to quote the words of Mr. Lumley, in his able report of February, 1859, in reply to the Circular Despatch of the Earl of Malmesbury, dated July 22, 1858,\*—

“The wine trade of France seems to have been as much indebted to Spain for its existence, during the last five or six years, as that of Portugal on the Douro has been; and although at Bordeaux, as at Xerez, the large stocks of old wine may be still unexhausted, though greatly diminished, there is little doubt that a large quantity of the new wine, which for the last five years has been manufactured in the south of France, and which has been exported to all parts of the world as wine of the first vintages of France, was little else than Spanish wine mixed and flavoured with other substances.”

A member of the Senate or Chamber of Deputies who reported to Mr. Lumley on the Navarre district, says:—

“Should the Frontier” (the Pyrennees) “be again closed, or any import duties be levied in France on our wines, the latter of which is to be feared, from the circumstance of the disease being on its decline in that country, with a prospect of its complete extinction, we shall be absolutely drowned in wine, as has been the case more than once, and with still greater reason at present, in consequence of the extensive plantations of new vines which have been lately made, rather injudiciously in my opinion, as if it could be expected that the circumstances from which we have derived such large profits were to last for ever.”

If a reduction of the duties on the importation of wines into England, be sanctioned by Parliament, there can scarcely be room

\* Reports by Her Majesty's Secretary of Embassy, &c., on the effect of the Vine Disease, &c. Presented to both Houses of Parliament, 1859.



for doubt that a largely increased consumption of Spanish wine will rapidly take place in this country, particularly if care be exercised in making the cheaper kinds of wine so that they may be kept better than hitherto.\*

Mr. Lumley, in the course of his very interesting remarks, observes:—

“Large as is the extent of country in Aragon and Navarre cultivated with vineyards, it is small in comparison with what it might be if the demand for the wines of these provinces should continue, and what it certainly will be when the railroads now in course of construction are completed to the French frontier, as well as to Bilbao and Barcelona, which lines will be of equal benefit to the vineyards of Old and New Castile, many of which, like those of Aragon, have been as little known to the rest of Spain as they are to the rest of Europe.”

It has already been pointed out, in the Table showing the distribution of cultivation and uncultivation, that the vineyards of Spain constituted, in 1857, less than 3 per cent. of the aggregate area. It remains to be ascertained how much this has been increased by the stimulated increased culture of the last three years. Even if the cultivation of the vine in Spain were to be increased one-half within the next few years, it would more than cover the growing power of domestic consumption of wine, which advancing prosperity in that country would call into being, and would leave a large surplus to meet the demands for exportation arising out of the adoption of free trade tariffs by other countries. Spain is very unlikely to adhere, under the circumstances of the moment, to such overburdening protective duties as hitherto—at least, if she have the wisdom to understand her own interests, she will soon relax them. She is rapidly releasing herself from the swathes and bands which dwarfed and crippled her growth. One of the chief difficulties which she has already got over, is the reduction to a common system of administration of the different systems of the various old provinces which clashed with each other—another is, the earnest of a desire for better faith in financial engagements.—But the greatest bars to her material progress, namely, the insufficiency of internal communication, and the want of industrial enterprise, or of the means of carrying out improvements in the non-maritime provinces—have not yet been entirely overcome. All this, however, is in course of change, her people are getting better informed, her industry is reviving, her network of railways and of telegraphs is advancing,† and with the blessing of Providence which attends the rightly directed efforts and energies of nations as it does those of individuals, Spain has about

\* Whilst these pages were in the press, the reduction alluded to *has* been sanctioned.

† See Statistics of Public Works and means of communication, (ix) post.



as fair and promising a field for the future, as any of the most favoured countries of the world.

(B.)—*Spain—Live Stock and Cattle\** (1858).

Sheep .....	13,794,959	Asses .....	491,690
Goats .....	2,733,966	Mules .....	415,978
Cattle .....	1,380,861	Horses .....	268,248
Swine .....	1,018,383	Total number of head	<u>20,104,085</u>

The number of head of live stock and cattle in Ireland in the year 1858, will afford a very convenient standard of comparison with the preceding figures. It appears that the numbers for Ireland are, sheep, 3,494,993; goats, 228,351; cattle, 3,667,304; swine, 1,409,883; asses, 163,323; horses and mules, 630,611. Total number of head 9,594,465.

From these data, the following Table is constructed:—

Description.	SPAIN in 1858.	IRELAND in 1858.
	Per Cent. of Total.	Per Cent. of Total.
Sheep .....	68·6	36·4
Goats .....	13·6	2·4
Cattle .....	6·9	38·2
Swine .....	5·1	14·7
Asses .....	2·4	1·7
Horses and Mules .....	3·4	6·6
	100·0	100·0

The Irish returns give the number of poultry, which the Spanish returns omit. The Spanish state the number of bee-hives, an item not included in the Irish schedules.

(C.)—*Territorial Statistics* (1858).†

Dwelling-houses and buildings subject to payment of the territorial contribution, or exempt therefrom:—

Dwelling-houses, urban .....	2,139,878
,,    rural .....	430,237
Houses for industrial purposes .....	50,376
Houses exempted from the territorial tax:—	
(1.) Temporarily .....	1,916
(2.) In perpetuity .....	37,974
Total edifices .....	<u>2,660,381</u>

\* Exclusive of those in the Basque provinces and Navarre.

† Exclusive of the Basque Provinces and Navarre.

IV.—*Ecclesiastical Statistics, 1768-1857.*(A.)—*Ecclesiastical Statistics (1768-9).*

Convents for Monks .....	2,004
„ Nuns .....	1,029
	<hr/>
Total .....	3,033
	<hr/>
Monks .....	55,453
Nuns.....	26,665
Curates .....	15,639
Beneficed clergy .....	50,048
	<hr/>
Total ecclesiastics.....	147,805
	<hr/>
Church servants .....	25,251
Lay brethren .....	26,294
Collectors of convent alms .....	10,638
	<hr/>
Total laymen .....	62,183
	<hr/>
Total secular and regular clergy	209,988
	<hr/>

These numbers show that, including monks and nuns, the proportion of persons actively employed in ecclesiastical functions was about 1 in 43 of the whole estimated population in 1768-69.

(B.)—*Ecclesiastical Statistics (1787).*

Ecclesiastics .....	70,331
Dependents of the Church.....	16,495
	<hr/>
Total, secular clergy .....	86,826
	<hr/>
Monks.....	37,363
Novices, laymen, lay-brethren, and dependents ....	24,606
Nuns .....	23,554
Novices, senoras, children, and dependents.....	8,946
	<hr/>
Total, regular clergy .....	94,469
	<hr/>
Total, secular and regular .....	181,295
	<hr/>

These numbers show a proportion of about 1 in 56 of the whole population as estimated for the year 1787.

This proportion corresponds very closely with that which existed as regards the clergy of France immediately before the Revolution.

(C).—*Ecclesiastical Statistics* (1834).

Convents existing in Spain in the year 1834 of the following Orders:—

Agonizants .....	6	Congregation of Fathers of the Mission .....	8
Augustinians .....	269	Dominicans (Order of Preachers) .....	351
Basilians .....	17	Escolapians (poor clergy of pious instruction) .....	24
Benedictines.....	91	Franciscans .....	1,175
Bernardians (Cistertians) .....	130	Hieronymites .....	67
Brigidians.....	5	Hospitallers.....	58
Canons, regular .....	95	Mercenaries .....	138
Carmelites .....	297	Minims of Our Lady of Victory .....	91
Carthusians .....	16	Servants of Mary.....	12
Clerks-missionary, secular .....	9	Theatines .....	5
Clerks-regular, Minorites .....	15	Trinitarians .....	113
Company of Jesus .....	10		
Company of Mary .....	5		
Congregation of Priests of the Oratory .....	20	Total .....	3,027

Of the 3,027 convents 321 were monastic communities, viz.:—Basilians, Benedictines, Bernardians, Carthusians, and Hieronymites; the remaining 2,706 were of mendicant orders.

(D).—*Ecclesiastical Statistics* (1837-54-58).

Comparative statement of individuals uncloistered (*exclaustrados*), and of the amount of their pensions in the years 1837-54-58.

Individuals remaining uncloistered in the years	1837 .....	23,935
	1854 .....	8,341
	1858 .....	6,822
Pensions in .....	1837 .....	£379,000
	1854 .....	152,000
	1858 .....	125,000

The Monks were removed from the monasteries in the year 1836, when it was resolved that the property of the monasteries should be sold and applied to national uses, by way of redemption of debt. Down to the year 1856, about 19,706,000*l.* worth of monastic property was thus disposed of. The Spanish government granted a so-called compensation in the shape of small pensions. The average allowance does not exceed from about 16*l.* to 18*l.* a year, per head. It is said that even these trifling stipends were not paid with regularity during the political troubles which so long prevailed in Spain. It is, however, observable (as indicated in the statistics given in the table which precedes the above) that no less than nearly 90 per cent. of all the houses of the religious Orders, belonged to mendicant



Orders. A very large proportion of these had doubtless made a vow of poverty, so that the pressure of contracted means may not have been so much felt as might at first be supposed.

(E).—*Ecclesiastical Statistics* (1858.)

Dioceses .....	61
Congregations .....	18,325
Parishes .....	19,297

CATHEDRAL CLERGY.

Prelates .....	52
Dignitaries .....	284
Canons .....	778
Beneficed clergy .....	937
Chaplains ( <i>capellanes sirvientes</i> ) .....	150
	<hr/> 2,201

COLLEGIATE CLERGY.

Abbots and canons .....	218
Beneficed clergy .....	242
	<hr/> 460

PAROCHIAL CLERGY.

Parochial priests ( <i>curas</i> ) .....	19,288
„ curates ( <i>clerigos adscriptos</i> )....	15,010
	<hr/> 34,298

REGULAR CLERGY.

Uncloistered (not attached to cathedrals, col- leges, nor parishes) .....	6,702
	<hr/>
Total.....	43,661

The legal status of the monks was restored by the Concordat of 1851, and the following shows the most recent returns of their communities according to the *Guia Ecclesiastica, ano de 1858*.

Monasteries .....	864
Monks in 1854 .....	11,601
„ 1857 .....	12,593
Monks the convents may contain, according to } Concordat .....	21,648
Chaplains, sacristans, organists, and choristers ....	1,960

In order to arrive at an approximate view of the number of regular and secular Clergy in 1857-8, we must add the number of monks above-mentioned, viz.: 12,593—to the clergy of all kinds enumerated before under (E), viz.: 43,661—and the aggregate, or 56,254 is in the proportion of 1 to 275 of the whole population.

Recapitulating the proportions given for previous periods it will be found that the diminution, admitted to be a national blessing by all truly patriotic Spanish writers, has been successively from 1 in

43 of the population in 1768-9, down to 1 in 56 of the population in 1787, and finally to 1 in 275 of the population in 1857.

(F.)—*Ecclesiastical Statistics (1857.)*

BULLS and LICENSES expended and INDULGENCES granted in the year 1857, with a statement of the sums paid:—

Bulls for the living .....	4,059,055
„ for the dead.....	277,422
„ (compositions).....	10,837
„ <i>de ilustres</i> .....	2,483
Total Bulls .....	<u>4,349,797</u>
Licenses ( <i>lacticinios</i> ) of the 1st, 2nd, 3rd, } and 4th classes .....	28,311
	<u>4,378,108</u>
Price paid for the Bulls and Licenses.....	£132,000
„ Indulgences.....	30,000
Total sum paid.....	<u>162,000</u>

V.—*Statistics of Public Instruction.*

The COLLEGES in Spain and their scholars were:—

(A.)—*In 1787.*

170	for Boys, with	6,430	scholars
43	„ Girls, „	1,298	„
<u>213</u>	.... Total ....	<u>7,728</u>	

(B.)—*In 1797.*

99	for Boys, with	4,505	scholars
50	„ Girls, „	2,745	„
<u>149</u>	.... Total ....	<u>7,250</u>	

(C.)—*SCHOOLS in 1797.*

8,704	for Boys with	304,613	scholars
2,303	„ Girls, „	88,513	„
<u>11,007</u>	.... Total ....	<u>393,126</u>	

(D.)—*HOUSES of STUDY (Casas de Estudios) in 1797.*

Number of Houses.....	357
„ Masters .....	1,485
„ Scholars .....	28,226

(E.)—SCHOOLS of FIRST INSTRUCTION in 1855.

20,753	Schools, for .....	{	684,657	Boys
			320,317	Girls
Total Scholars .....			<u>1,004,974</u>	

Of these schools 16,709 were public, 3,624 private, and 420 under the care of religious congregations and communities. Taking the whole population of Spain, the average proportion of schools to inhabitants was 1 in 745, and the average proportion of scholars to inhabitants 1 in 15. The minimum proportion of schools was in the province of Murcia, 1 in 1,933 inhabitants; and the maximum in the province of Soria, 1 in 257 inhabitants. The minimum proportion of scholars was in the Canaries, 1 in 46 of the inhabitants: and the maximum in the provinces of Soria and Navarre, 1 in 8 inhabitants.

The *expenses* of the 16,709 Public Schools amounted to 262,000*l.* for the personal, and 61,000*l.* for the material, charges. Total charges in the year, 323,000*l.* The amount actually raised in the year 1855, was 351,000*l.*, viz.:—275,000*l.* by the municipalities, 22,000*l.* from foundations, and 54,000*l.* from the scholars.

(F.)—NORMAL SCHOOLS in 1855.

The number of *matriculated scholars* in the Central Normal School at Madrid, was 186; of those in 12 inferior normal schools in Barcelona, Burgos, and other towns, 779; and of those in 21 elementary normal schools in Alicante and other towns, 520. Total 1,485 scholars.

(G.)—SCHOOLS of SECONDARY INSTRUCTION in 1858.

Institutions .....	53
Professors .....	585
Scholars at the Institutions .....	10,525
Private Colleges.....	42
Scholars at the Colleges .....	3,414
Matriculated, under private instruction .....	3,241
Total Scholars, at the Institutions, Colleges, and Private	17,180

(H.)—ECCLESIASTICAL and COUNCIL SEMINARIES in 1857-8.

Number of Students, Boarders .....	4,597
„ „ Non-boarders .....	12,524
Total, ordinary Students .....	<u>17,121</u>
Gratis Students (entirely so) .....	670
„ (partly) .....	236
	<u>906</u>



## (I.)—UNIVERSITIES in 1858.

Faculty.	Schools in undermentioned Universities.	Pro- fessors.	Students.
Sciences .....	{ 10—Barcelona, Granada, Madrid, Oviedo, Salamanca, Santiago, Se- ville, Valencia, Valladolid, Zaragossa }	46	127
Philosophy and Literature ( <i>letras</i> ) .....	{ 10—as above .....	51	191
Law .....	10—as above .....	80	3,742
Theology .....	{ 6—Madrid, Oviedo, Salamanca, San- tiago, Seville, Zaragossa..... }	14	326
Medicine .....	{ 7—Barcelona, Granada, Madrid, San- tiago, Seville, Valencia, Valladolid . }	73	1,155
Pharmacy .....	{ 4—Barcelona, Granada, Madrid, San- tiago .....	11	563
		275	6,104

## (J.)—SCHOOLS of PROFESSIONAL INSTRUCTION in 1858.

	Number of Schools.	Professors.	Scholars.
Commerce .....	9	27	553
Navigation .....	14	40	586
Farm Superintendence and Land Surveying .....	5	20	402
Veterinary .....	4	15	1,078
	32	102	2,619

(K.)—SCHOOLS of SUPERIOR (*Technical*) INSTRUCTION in 1858.

		Professors.	Scholars.
1	{ Special school of engineers for roads, canals, } and harbours .....	10	115
1	School of mines.....	8	34
1	School of woods .....	4	12
1	Superior school of architecture .....	7	23
6	Industrial schools .....	54	1,806
1	School of diplomacy .....	6	43
9	Notarial schools .....	10	471
7	Schools of painting .....	20	2,271
6	„ sculpture.....	7	114
3	„ engraving .....	3	14
1	School of music and declamation.....	37	531
37		166	5,434

VI.—*Statistics of Beneficent and Provident Institutions.*

(A.)—BENEFICENT INSTITUTIONS *in 1787 and 1797.*

	In 1787.	In 1797.
Hospitals .....	773	2,331
Hospices .....	88	106
Foundling-houses .....	51	67
Total .....	912	2,504

(B.)—BENEFICENT INSTITUTIONS *in 1858.\**

	Number of Establishments.	Number of Persons Received in the Establishments.
General .....	7	677
Provincial .....	215	46,010
Municipal .....	1,101	126,754
Private .....	262	—
Domiciliary Charities .....	182	—
	1,767	173,441
Hospitals .....	911	—
Hospices .....	119	—
Houses of maternity .....	112	—
Lying-in-houses .....	46	—
Relieving houses and asylums for beggars and poor..... }	583†	—
	1,771	—

A list is given of nearly 100 baths and mineral waters, which are ranged under the head of *beneficencia*. The data of the numbers resorting to each establishment are wanting, they are, however, published for 35 of them, making a total of 31,189 individuals.

(C.)—*Statistics of SAVINGS' BANKS in Spain, 31st December, 1858.*

The only provinces in Spain in which there were Savings' Banks in existence at the close of the year 1858, were Alava, Barcelona, Burgos, Cadiz, Granada, Madrid, Seville, Valencia, Valladolid. In addition to these nine provinces, it is observed that at the above date there was one Savings' Bank in liquidation in the province of Murcia at Carthagena, that another combined with a Mont de Piété ceased to

\* Classified according to the Law of 20th June, 1849.

† There existed in 1858 no less than 3,003 *positos* or granaries for the relief of the poor, these are classified as 999 *pios*, and 2,004 *nacionales*.

exist at Corunna in 1854, and that at Zaragossa there was a bank combining also the functions of a Savings' Bank (*Caja de ahorros*).

The statistics of sums deposited, or other financial particulars, are not given, but we have the following analysis of the positions in life of the depositors.

Minors of both sexes .....	4,309
Females.....	7,462
Domestics.....	3,611
Artisans and day labourers .....	5,773
Employés (clerks, &c.) .....	765
Military .....	530
Others, of various classes .....	1,875
Total.....	<u>24,325</u>

### VII.—Criminal Statistics, 1858.

#### (A.)—Number of Persons APPREHENDED (*Arrests by the Civil Power excepted*).

For offences against the person .....	1,341
„ do. property .....	1,580
„ other offences.....	1,285
„ defaults ( <i>por faltas</i> ) .....	1,794
Total.....	<u>6,000</u>

#### (B.)—ARRESTS by the CIVIL GUARD (1846 to 1858).

	Year 1858.	Thirteen Years, 1846-58.
Delinquents .....	8,631	81,230
Thieves .....	4,609	41,569
Fugitive Criminals .....	1,175	11,607
Deserters.....	550	10,316
Arrested on accusation ( <i>detenidos</i> ) .....	13,035	213,852
Total .....	<u>28,000</u>	<u>358,574</u>

#### (C.)—Number of PRISONS and Persons Employed therein (1858).

Prisons.....	479
Persons employed .....	611
Salaries of do.....	£14,500

#### (D.)—OFFENCES against PUBLIC JUSTICE (1857).

##### Special offences :—

Frauds .....	702
Smuggling .....	2,208
Offences by private individuals :—	
Sedition .....	3
Other offences .....	271
Offences by public employés.....	194
Total .....	<u>3,378</u>



(E.)—*Number and Circumstances of the PERSONS TRIED (1857).*

Number of criminals ..... 7,375

## Age:—

Under 18 years ..... 224

Above 18 years ..... 6,134

Age not stated ..... 1,017

7,375

## Married or single:—

Single ..... 1,696

Married ..... 4,184

Widowed ..... 489

Not stated ..... 1,006

7,375

## Instruction:—

Could read and write..... 3,388

Could not read or write..... 2,769

Not stated ..... 1,218

7,375

## Former convictions:—

Re-convicted ..... 630

Convicted for first time..... 4,951

Unknown ..... 1,794

7,375

## (F.)—PRISONERS EXISTING on the 1st January, 1857-58.

	1st Jan., 1857.	1st Jan., 1858.
<i>1. Sentenced under the old criminal legislation.</i>		
To correctional imprisonment .....	55	69
To prisons in the Peninsula .....	676	654
„ Africa .....	2,181	2,178
<i>2. Sentenced under the penal code now in vigour.</i>		
To chains, perpetual .....	986	827
„ temporary .....	2,072	2,099
To solitary confinement, perpetual .....	4	1
„ „ temporary .....	1,536	1,472
To Bridewell ( <i>Presidio</i> ), greater .....	2,132	2,182
„ „ less.....	2,430	2,680
„ „ correctional .....	3,059	3,862
To prison, greater .....	595	442
„ less .....	646	624
„ correctional .....	1,214	1,157
Total, under the old and new legislation ....	17,586	18,247

(G.)—OFFENCES of PRISONERS *Existing 1st January, 1857-58.*

	1st Jan., 1857.	1st Jan., 1858.
Falsification of seals and documents .....	476	530
Offences against public order .....	773	860
Public employés, offences against duties .....	212	219
Offences against property .....	10,263	11,168
,, liberty and security .....	138	127
,, the person .....	4,238	3,822
,, decency .....	221	217
,, honour .....	109	126
,, the civil regulations .....	16	16
Vagrancy and mendicity .....	238	219
Tricks and disputes ( <i>juegos y rifas</i> ) .....	10	11
For rash imprudence .....	38	37
Military offences .....	749	766
	17,481	18,118

(H.)—HOUSE of CORRECTION—PRISONERS *Existing on the 1st January, 1857-58.*

	1st Jan., 1857.	1st Jan., 1858.
<i>1. Sentenced under the old criminal legislation.</i>		
To correctional imprisonment .....	2	2
To prisons in the Peninsula .....	12	10
,, Africa .....	14	17
<i>2. Sentenced under the penal code now in vigour.</i>		
To chains, perpetual .....	35	37
,, temporary .....	86	90
To solitary confinement, perpetual .....	1	1
,, temporary .....	41	38
To Bridewell ( <i>Presidio</i> ), greater .....	150	151
,, less .....	452	484
,, correctional .....	791	809
To prison, greater .....	27	34
,, less .....	52	59
,, correctional .....	83	107
Total under the old and new legislation ....	1,746	1,839

(I).—*Offences of House of Correction Prisoners Existing on the  
1st January, 1857-58.*

	1st Jan., 1857.	1st Jan., 1858.
Falsification of seals and documents .....	64	82
Offences against public order.....	27	36
Public employés, offences against duties .....	6	8
Offences against property .....	1,387	1,473
,, liberty and security.....	10	9
,, the person .....	182	185
,, decency .....	33	21
,, honour.....	10	9
,, the civil regulations .....	10	8
Vagrancy and mendicity.....	11	6
Tricks and disputes ( <i>juegos y rifas</i> ) .....	—	—
Rash imprudence .....	5	3
Military offences.....	1	1
	1,746	1,841

VIII.—*Financial Statistics, 1858.*(A).—BUDGETS (*Presupuestos*) of the ORDINARY EXPENDITURE of the STATE  
for the Year 1859.

1. General obligations of the State :—	£
Royal civil list ( <i>casa real</i> ) .....	523,500
Senate .....	9,500
Congress of the deputies .....	13,200
Public debt .....	3,381,000
Expenses of justice .....	131,000
Pensions ( <i>Haberes de Clases pasivas</i> ) .....	1,458,000
	<u>5,516,200</u>
2. Presidency of the Council of Ministers :—	
Presidency .....	1,700
Central statistical commission .....	5,800
Provincial statistical commissions .....	14,000
Topographical cadastral commission .....	2,200
Extraordinary charges for statistics.....	13,000
	<u>36,700</u>
3. Ministry of State.....	<u>143,300</u>
4. Ministry of Religion and Justice :—	
Religion and secular clergy .....	1,575,000
Other ecclesiastical obligations.....	176,500
Expenses of the administration of justice, &c.....	272,600
	<u>2,024,100</u>



4. Ministry of War .....	3,310,200
5. Ministry of Marine .....	946,100
6. Ministry of the Home Department ( <i>de la Gobernacion</i> )....	879,300
7. Ministry of Commerce, Education, &c. ( <i>Ministerio de Fomento</i> ) .....	801,700
8. Ministry of Finance ( <i>de Hacienda</i> ).....	4,208,900
General total of the eight Budgets for 1859 .....	£17,867,000

The comparative *ordinary* expenditure under the same eight budgets for the preceding year (1858), amounted to 18,382,000*l*.

(B.)—BUDGETS (*Presupuestos*) of the ORDINARY RECEIPTS of the State for the Year 1859.

1. Direct Contributions .....	£5,134,000
2. Indirect taxation .....	4,106,000
3. Stamps and Government monopolies :—	
Stamps .....	£756,100
Tobacco .....	2,941,000
Salt .....	1,190,000
Gunpowder .....	205,000
Lotteries .....	1,250,000
Post Office.....	51,900
Telegraphs.....	42,000
Other Government institutions .....	120,000
	6,556,000
4. Property and rights of the State :—	
Mines.....	227,800
Lands and rents of the clergy .....	481,500
Crown lands and other State property.....	120,200
	899,000
5. Surplus revenues from Colonies :—	
Havannah .....	780,000
Porto Rico.....	20,000
Philippines .....	452,000
	1,252,000*
Total estimated ordinary receipts .....	£17,947,000

\* This feature of surplus revenue from Spanish Colonies, is in great contrast with the cost of the several colonies of the British Empire at the expense of the British Exchequer, which amounted to 4,877,957*l*. in 1856, and to 4,115,757*l*. in 1857. Reference is here made to this point as one of interest, but at the same time there is no reason to doubt that the collateral advantages to the mother country is even proportionately greater in the case of England than of Spain, the colonies of which rest upon the weak foundation of slave labour.

The comparative ordinary receipts for the preceding year (1858), amounted to 17,752,000*l*.

(C.)—BUDGET of EXTRAORDINARY RECEIPTS for 1859.

	£
Produce of sale of national property .....	1,286,000
Fund arising from substitution in military service .....	300,000
Liquidation of Treasury bills by sale of property of the } State and of civil corporations .....	1,067,000
Total.....	<u>£2,653,000</u>

These Extraordinary Receipts are devoted to meet the supplementary budgets of the year 1859 (*not* including the war now being carried on by Spain in Morocco), and are voted to the several ministries after the French fashion. The details are given in the accounts, but are too long for insertion. The aggregate *additional expenditure* thus voted, exactly balances the total extraordinary sources of income as above, viz., 2,653,000*l*.

(D.)—PROVINCIAL BUDGETS of EXPENDITURE for 1858.

	£
Provincial Administration .....	215,900
Public Instruction .....	101,100
Charity ( <i>Beneficencia</i> ).....	596,100
Public Works .....	516,500
Public correction (Prisons, &c.) .....	23,200
Pawn Establishments ( <i>Montes</i> ) .....	19,400
Other expenses.....	90,700
Voluntary expenses .....	79,600
Unforeseen charges ( <i>imprevistos</i> ) .....	52,300
Total.....	<u>1,694,800</u>

(E.)—PROVINCIAL BUDGETS of RECEIPTS, 1858.

	£
Income from provincial lands and rents .....	46,800
Tolls, turnpikes, &c. ....	33,700
Authorized taxes .....	84,000
Special Income from Public Instruction .....	22,000
„ charitable sources .....	237,000
Balance in hand from previous year .....	64,000
Balances due and in recovery from previous year .....	358,000
Total .....	<u>845,500</u>

On comparison with the preceding account of expenditure (D), it will be seen that there was a deficit of about 850,000. It appears that special means were resorted to, to cover this deficit to the extent of about 700,000*l*. These were by additional charges (*re-*

*cargos*), viz.:—191,000*l.* on the territorial contribution, 65,000*l.* on the industrial contribution, 436,000*l.* on articles of consumption, and 8,000*l.* by taxes allotted for the purpose.

(F.)—MUNICIPAL BUDGETS of *Expenditure* for 1857.\*

	£
Corporations ( <i>Ayuntamientos</i> ) .....	611,300
Police Guard ( <i>Policia de seguridad</i> ) .....	56,700
Urban Police .....	235,400
Public instruction .....	332,800
Charity .....	152,700
Public Works .....	215,200
Public correction:—	
Salaries .....	18,000
Maintenance of poor prisoners .....	96,300
Journeying and help to do. ....	7,000
	<hr/>
	121,300
Pawn establishments .....	51,200
Charges ( <i>cargas</i> ) .....	385,300
Expenses (voluntary for new buildings).....	114,700
,, (unforeseen           ,,           ).....	107,000
	<hr/>
Total .....	2,383,600

(G.)—MUNICIPAL BUDGETS of *Ordinary Receipts* for 1857.

	£
Rents from properties .....	323,900
Taxes on articles of consumption, &c.....	458,500
Charity .....	82,000
Public Instruction .....	16,000
Extraordinary receipts.....	226,000
	<hr/>
Total Receipts .....	1,106,400

Comparing this total with the previous expenditure account (F), there appears a deficit of 1,277,200*l.* Funds were raised in the year towards liquidating this balance, to the extent of 1,141,000*l.*, viz.:—credits 86,900*l.*, taxes on articles of consumption 605,100*l.*, taxes upon other articles 96,800*l.*, assessments (*repartimientos*) upon the basis of immoveable property 293,100*l.*, and upon the basis of the industrial subsidy 59,100*l.*

\* The Statistics for 1858 are not published, and the results comprised in this aggregate return, are in 4 out of the 49 provinces for 1849 and 1846. The remaining 45 are all for 1857.



(H.)—GENERAL RESUME of the *Expenditure and Income according to the STATE, PROVINCIAL, and MUNICIPAL BUDGETS.*

	Year.	Budgets.		Total.
		Ordinary.	Extraordinary.	
<i>Expenditure.</i>		£	£	£
Of the State.....	1859	17,866,600	2,652,600	20,519,200
Of the Provinces.....	1858	1,694,700	—	1,694,700
Of the Municipalities .....	1857	2,383,800	—	2,383,800
<b>Total .....</b>	<b>—</b>	<b>21,945,100</b>	<b>2,652,600</b>	<b>24,597,700</b>
<i>Income.</i>				
Of the State.....	1859	17,947,300	2,652,600	20,599,900
Of the Provinces.....	1858	844,600	—	1,544,500
Of the Municipalities .....	1857	1,106,300	—	2,247,300
<b>Total .....</b>	<b>—</b>	<b>19,898,200</b>	<b>2,652,600</b>	<b>24,391,700</b>

It seems to have been impossible to obtain the returns of expenditure under each of the three categories of budgets for the same year, but the above doubtless gives a fair average view of the aggregate average expenditure at the most recent date, exclusive of war expenses.

(I.)—NATIONAL DEBT of *Spain as at 31st December, 1858.*

	Capital.	Interest.
(1). <i>Debt of the State.</i>	£	£
Perpetual 3 per cent. Consolidated Rents (Home)	37,306,200	1,119,200
„ „ „ (Foreign)	10,528,000	315,800
„ „ Deferred Rents..... (Home)	22,713,100	369,100
„ „ „ (Foreign)	26,017,700	422,800
Consolidated Rent at 5 per cent., recognized in } the United States .....	120,000	6,000
	96,685,000	2,232,900
(2). <i>Public Works Debt.</i>		
Shares at 6 per cent. in various Loans for the } construction of roads since 1833 .....	7,017,600	121,100
„ „ „ for Railroads .....	2,321,500	139,300
„ „ „ for Public Works	725,400	43,500
	10,064,500	303,900
(3). <i>Debt of the Public Treasury.</i>		
Treasury Bills, with interest at 3 per cent. ....	304,600	9,100
<b>FUNDED DEBT, TOTAL STOCK.....</b>	<b>107,054,100</b>	<b>2,545,900</b>

The above is entirely exclusive of the claims for interest due upon the old debt in process of conversion under the law of 1st August,

1851. These claims amounted at 31st December, 1858, to a total of about 16,670,500*l*.\*

The alterations in the debt of Spain through conversions, changes of an arbitrary or expedient character, redemptions, &c., have affected no less a sum than 215,615,000*l*. in the 23 years, 1836-1858.

(4). *The UNFUNDED (Floating) DEBT of Spain—*

Amounted, on 31st December, 1858, to the sum of..... £5,745,000

(K.)—BANKING STATISTICS of Spain (1858).

Name of Bank.	Capital.		Shares.			Notes, On 31st July, 1858.	
	Nominal.	Effective.	Number.	Amount.	Paid-up.	Issued.	In Circulation.
	£	£	£	£	£	£	£
Bank of Spain.....	—	1,200,000	60,000	20	20	2,662,800	2,310,300
„ Barcelona .....	400,000	200,000	20,000	20	10	430,600	398,100
„ Cadiz.....	500,000	150,000	50,000	10	3	449,500	372,600
„ Malaga .....	200,000	100,000	5,000	20	20	205,800	164,000
„ Seville .....	180,000	60,000	3,000	20	20	180,000	173,800
„ Valladolid .....	—	60,000	3,000	20	20	94,000	40,100
„ Taragossa .....	—	60,000	3,000	20	20	60,000	48,100
„ Santander .....	—	50,000	2,500	20	20	94,900	83,900
„ Bilbao .....	—	80,000	4,000	20	20	90,000	70,300
„ Corrunna .....	—	40,000	2,000	20	20	20,000	17,100
	1,280,000	2,000,000	152,500	—	—	4,287,600	3,678,300

(L.)—SOCIETIES of CREDIT (1858).

The total number of these institutions is seven, of which three are established at Madrid, viz.;—the *Sociedad general de Crédito moviliario Espanol* (Pereire, &c.)—the *Compania general de Crédito en Espana* (Prost and Co.)—and the *Sociedad Espanola Mercantil é Industrial* (Sevillano, &c.) Three are established at Barcelona, viz.:—the *Sociedad Catalana general de Crédito*—the *Crédito moviliario Barcelonés*—and the *Union Comercial*. One has its seat at Valencia, the *Sociedad de Crédito Valenciano*.

The collective *nominal capital* of the seven societies, is 14,230,000*l*.—their *effective capital* 3,476,500*l*. The number of shares 379,000.

The first-mentioned of these societies, the General Society of Spanish Credit Mobilier, declared a dividend payable last month (January, 1860), of 22 per cent. upon the capital paid up of 684,000*l*., without entrenching upon its accumulated reserve fund which it sets down at upwards of 145,000*l*. The report of the society for Novem-

\* In the case recently submitted by the Committee of Spanish Certificate holders to Dr. Phillimore, it is stated that, in August, 1851, the arrears unpaid were 16,227,075*l*.

ber, 1859, speaks of the opening of the Northern Railway in Castille, with a length of more than 300 kilòmetres (the opening of which was to take place in successive fractions in the first month of the present year), and which would procure the means of disposing of the products of the society's coal mines, situated in the same region, and would enable them from that moment to supply the market of Madrid, of which the English coals (it is stated) keep the monopoly at very high prices, and that such monopoly will be inattackable as long as the means of conveyance are not ameliorated.

(M.)—DISCOUNT SOCIETIES (1859).

The societies of this kind, which, besides discount operations grant loans under certain conditions, are three in number, viz. :—the *Valenciana de Fomento*, at Valencia; the *Caja Barcelonesa de giros, descuentos, prestamos y cuentas corrientes*, at Barcelona, and the *Caja Catalana industrial y mercantil*, also at Barcelona. The total nominal capital of the three societies, is 950,000*l.* divided into 32,000 shares.

(N.)—INDUSTRIAL COMPANIES (1859).

These manufacturing societies, the list of which must be omitted for want of space, are 47 in number, with a collective capital of 3,992,700*l.* in 167,360 shares.

(O.)—GENERAL RESUME of all BANKING, CREDIT, and JOINT STOCK COMPANIES in Spain (1859).

	Number.	Shares.	Nominal Capital.
			£
Banks .....	10	152,500	1,280,000
Credit Societies .....	7	379,000	14,230,000
Discount and Banking Societies ....	3	32,000	950,000
Industrial Societies.....	47	167,360	3,992,700
Public Works, Canal, &c. Societies	18	711,550	15,677,000
Insurance Societies.....	17	113,600	5,240,000
	102	1,556,010	41,369,700

IX.—Statistics of Public Works and Means of Communication, 1859.

(A.)—Navigable Canals.

	Length in Kilòmetres.	Length in English Miles.
Canal Imperial de Aragon .....	88	55
Rio Ebro and Canal de San Carlos .....	277	172
Canal de Castilla.....	210	130
Canal de Manzanares.....	14	9
Rio Guadalquivir .....	104	65
	693	431



## (B.)—RAILWAYS.

	Kilomètres.	English Miles.
Finished and at work .....	843	524
In progress (portion at work) .....	142	88
	985	612
In progress (not yet at work) .....	680	422
„ (completed, but not at work) .....	1,437	893
Lines authorized ( <i>concedidas</i> ) .....	2,542	1,580
	5,644	3,507

Estimated cost 39,118,800*l.*, showing an average of 6,930*l.* per kilomètre, or 11,160*l.* per English mile.

## (C.)—ROADS.

	Kilomètres.	English Miles.
Constructed .....	9,534	5,923
In construction .....	2,739	1,702
Under consideration ( <i>en estudio</i> ) .....	4,119	2,559
	16,392	10,184

(D.)—PUBLIC WORKS—*Projected Expenditure (Law of 1st April, 1859).\**

	Repairs.	Completion of Works Begun.	New Constructions.	Sub- ventions.	Total.
	£	£	£	£	£
<b>ROADS.</b>					
Of first order, highways and } crossroads .....	500,000	1,200,000	1,470,000	—	3,170,000
Of second order, provincial.....	—	120,000	950,000	450,000	1,520,000
„ third order, suburban, &c....	—	—	1,300,000	500,000	1,800,000
<b>RIVERS AND CANALS.</b>					
River works .....	—	200,000	300,000	—	500,000
Canals for navigation and irri- } gation .....	—	150,000	260,000	—	410,000
Drainage of marshy grounds ....	—	—	50,000	—	50,000
<b>MARITIME NAVIGATION.</b>					
Harbours .....	—	900,000	1,100,000	—	2,000,000
Lighthouses .....	—	10,000	140,000	—	150,000
Buoys .....	—	—	50,000	—	50,000
<b>CIVIL CONSTRUCTIONS.</b>					
<i>Puerta del Sol</i> .....	—	230,000	—	—	230,000
Mint .....	—	40,000	—	—	40,000
Buildings for the <i>Ministerio</i> } <i>de Fomento</i> .....	—	—	80,000	—	80,000
	500,000	2,850,000	5,700,000	950,000	10,000,000

\* This law conceded to the Government an extraordinary credit of 20,000,000*l.*

(E.)—TELEGRAPHIC COMMUNICATION (*January, 1859*).

	Kilomètres.	English Miles.
Lines in operation .....	6,330	3,933

(F.)—POSTAL COMMUNICATION (*Number of Letters*) 1846 to 1858 inclusive.

Year.	Inland Letters and Packets.	From Spanish Possessions.	From Foreign Countries.	Total Letters and Packets.
1846 .....	18,459,491	51,164	321,280	18,831,935
1852 .....	21,183,329	178,336	593,314	21,954,979
1858 .....	39,533,394	959,907	2,101,432	42,594,733
1846 to 1858 } 13 Yrs.	317,179,647	3,493,005	10,087,410	330,760,062

X.—Mining Statistics, 1858.

Number of foundries of plate whose manufactures are subject to an inspection tax of 5 per cent.

Manufactories constantly at work .....	159
„ working at intervals .....	96
„ not at work .....	30
	<hr/>
	285

Iron foundries are not subject to this mine tax, and, therefore, are not included ; but it is observed that, in the provinces of Cuenca, Leon, and Oviedo, there are some such foundries also working silver plate, and which have not been separately classified.

MINING STATISTICS (1858).

Silver mines .....	2,274	Asphalte „ .....	8
Coal „ .....	496	Nickel „ .....	7
Lead „ .....	267	Lignite „ .....	7
Copper „ .....	219	Gold „ .....	6
Calamine mines .....	89	Sulphur „ .....	3
Peat „ .....	45	Cobalt „ .....	2
Sulphate and hydrochlorate of } soda .....	40	Arsenical pyrites mines .....	2
Cinnabar mines.....	32	Sal-gema .....	2
Alcohol „ .....	20	Anthracite .....	1
Zinc „ .....	19	Quicksilver .....	1
Tin „ .....	19	Topaz .....	1
Antimony „ .....	11		
Iron pyrites mines .....	10	Total mines at work....	<hr/> 3,581

Of the 2,274 mines returned as Silver Mines, 1,133, or nearly one-half, are in the province of Almeria, and it is explained that, although included in the category of argentiferous mines they also produce various sorts of poor lead, copper, and manganese.

XI.—*Military Statistics.*(A.)—ARMY (*Number of Men*) 1828-38-48-58.

	1828.	1838.	1848.	1858.
Royal Guard, of all arms.....	15,535	18,860	—	—
Infantry .....	33,821	94,165	71,907	76,638
Cavalry .....	6,372	11,642	12,334	11,552
Artillery .....	4,415	10,156	9,654	10,997
Engineers .....	913	2,479	2,691	2,288
Civil Guard .....	—	—	8,076	10,903
Provincial Militia .....	4,280	53,707	43,267	5,238
Free Corps ( <i>Cuerpos francos</i> ) ....	—	36,990	—	—
Foreign Legions .....	—	3,512	—	—
Total.....	65,336	231,511	147,929	117,616

The *minimum* number of men in any one of the 31 years, was in 1830, 65,334 men, and the *maximum* in 1837, 287,498 men.

(B.)—Army (*Expenses of the Force*) 1828-38-48-58.

	1828.	1838.	1848.	1858.
	£	£	£	£
Royal Guard, of all arms ....	236,000	214,000	—	—
Infantry .....	420,000	784,000	776,000	945,000
Cavalry .....	108,000	139,000	177,000	210,000
Artillery .....	67,000	98,000	121,000	145,000
Engineers .....	12,000	21,000	27,000	29,000
Civil Guard.....	—	—	254,000	387,000
Provincial Militia .....	57,000	439,000	489,000	56,000
Free Corps .....	—	504,000	—	—
Foreign Legions .....	—	89,000	—	—
	900,000	2,288,000	1,844,000	1,772,000

The smallest expense in any of the 31 years was 871,000*l.* in 1831, which is also set down as the expenditure of 1832. The largest expense was in 1837, 3,130,000*l.*

(C.)—PROJECTS of FORTIFICATION (*Royal Ordinance of 17th July, 1858*).

	Cost of Fortifications.	Cost of Buildings.	Total Cost.
	£	£	£
Ceuta .....	246,000	103,000	349,000
Tarifa .....	97,000	—	97,000
Cartagena .....	236,000	103,000	339,000
Ferrol .....	1,295,000	488,000	1,783,000
Santona .....	1,034,000	33,000	1,067,000
Mahon ( <i>Fortaleza de Isabel II</i> ) ..	821,000	136,000	957,000
Pamplona .....	395,000	180,000	575,000
Gerona.....	496,000	43,000	539,000
Burgos .....	755,000	119,000	874,000
Zaragoza .....	1,000,000	301,000	1,301,000
	6,375,000	1,506,000	7,881,000



The projected expenses for the defence of Cadiz and the Isla Gaditana, are not included in the above as the estimates were only in progress.

(D.)—MILITARY CONSCRIPTION (1857).

The number of young men to draw lots for the Conscription of the year 1857, was 126,318, being 1 in 122 of the whole population. The per centage proportion to the population in particular provinces varied from the maximum of 1 in 88 in the province of Almeria, to the minimum of 1 in 198 in the province of Madrid.

XII.—*Naval Statistics.*

(A.)—VESSELS of WAR in the Waters of the Peninsula (1857).

The number of these vessels was 38, mounting 301 guns. Fourteen out of this number were steam vessels, only two of which mounted as many as 16 guns, the remainder having only from 6 to 2 guns. The *collective* horse power of the engines, was 3,670, showing an average of only 262 horse-power. The 38 vessels were manned by 4,351 men and officers.

(B.)—VESSELS of the SPANISH NAVY in all parts of the World in 1859 (including those in construction).

The number of these vessels (including 13 on the stocks, but only 2 *old* ships, viz.: the *Perla* frigate, built in 1789, and the *Jasson* brigantine, built in 1822,) amounted to 97, with 942 guns. 43 of these were, or were to be, steam vessels of 9,760 horse-power *collectively*.

The ships of war of all descriptions in *Europe*, under the Spanish flag, in June, 1859, amounted to 26, viz.:—1 84-gun ship (the *Rey don Francisco de Asis*), 2 frigates, 2 screw frigates, 5 corvettes, 1 brigantine, 1 schooner, 7 screw schooners, and 7 steamers.

The number of Spanish vessels of war *sailing*, or at *foreign stations*, at the above date, was 37, viz.:—1 86-gun ship (the *Reina Donna Isabel*), 2 frigates, 2 screw frigates, 8 brigantines, 5 schooners, 3 screw schooners, 2 *pailebots*, and 14 steamers.

The number of transports at home and abroad, was 21. The special navy for the Philippine Islands, consisted of 3 launches and 32 Feluccas (*Faluas*), with 18 steamers (screw) building, total 53.

If to the preceding items the coast guard vessels (*Guarda Costas*) be added, 117 in number, including 7 steamers, we have a grand total of 261 vessels of all kinds, including 25 in course of building in June last (1859).

The Spanish ministry of Marine, comparing these statistics with those relative to the naval force existing in 1857, notices an *increase*

of 2 frigates, 1 corvette, 6 schooners, 4 feluccas, and 25 steamers. Of the latter, it is admitted however, that 18 are small steamers for service in the Philippines. It is further stated that the keels of 3 frigates and 3 screw schooners of large dimensions were to have been laid down last summer.

(C.)—MERCANTILE MARINE (1858).

Sailing vessels .....	6,715
Tonnage .....	449,436
Steam vessels .....	68
Horse-power .....	7,322
Tonnage .....	13,369
Vessels for long voyages .....	1,216
Coasting vessels .....	4,825
Vessels of Spanish build .....	6,671
,, Foreign build .....	150

These figures compared with those applicable to the year 1848 (*i.e.* ten years previous), show an increase of 2,102 sailing vessels, with an augmented tonnage of 217,176. The increase of steamers in the same decennium was 44, with an augmented *steam* horse-power of 5,412, and of tonnage 10,452.

(D.)—PROJECTED EXTRAORDINARY EXPENDITURES *for the* SPANISH NAVY (1858-1866).

The law of 1st April, 1859, alluded to in the present paper under the head of “Statistics of Public Works,” (see particularly (D) in that section), gives a budget of expenditure to be spread over eight years, amounting to about four and a half million sterling, viz. :—

	£
For arsenals .....	1,000,000
For building :—	
2 Screw ships of war of 90 to 100 guns.....	474,000
8 Screw frigates of 50 to 60 guns .....	1,155,000
9 Screw corvettes of 30 to 36 guns .....	782,000
14 Screw corvettes of 20 to 24 guns .....	719,000
30 Smaller screw vessels .....	368,000
Fractional sundry expenditure.....	2,000
Total.....	<u>4,500,000</u>

(E).—*Complete project of the Minister of Marine, for the NATIONAL SPANISH ARMADA.*

Screw vessels :—		£		£
6 Ships of war	at	237,000	each .....	1,422,000
12 Frigates	,,	144,000	,, .....	1,728,000
18 Corvettes	,,	87,000	,, .....	1,566,000
18 „	,,	51,000	,, .....	918,000
60 Smaller vessels	,,	12,000	,, .....	720,000
Paddle-wheel vessels :—				
4 steamers	,,	126,000	,, .....	504,000
8 „	,,	64,000	,, .....	512,000
6 „	,,	45,000	,, .....	270,000
12 „	,,	22,000	,, .....	264,000
Sailing vessels :—				
12 Vessels	,,	19,000	,, .....	228,000
Total .....				<u>8,132,000</u>

XIII.—*Commercial Statistics, 1850-57.*(A.).—IMPORTS *into*, and EXPORTS *from*, SPAIN (1850-7).

	Europe.	Asia.	Africa.	America.	TOTAL.
I. Imports.	£	£	£	£	£
1850.....	3,913,000	106,000	11,000	2,690,000	6,720,000
51.....	4,151,000	125,000	12,000	2,592,000	6,936,000
52.....	4,116,000	101,000	10,000	3,265,000	7,493,000
53.....	4,562,000	114,000	11,000	2,650,000	7,340,000
54.....	4,442,000	261,000	26,000	3,425,000	8,135,000
55.....	5,923,000	182,000	18,000	4 087,000	10,203,000
56.....	8,154,300	312,000	31,000	4,482,000	13,044,000
57.....	10,981,000	250,000	25,000	4,080,000	15,554,000
II. Exports.					
1850.....	3,118,000	49,000	37,000	1,683,000	4,887,000
51.....	3,019,000	55,000	30,000	1,907,000	5,010,000
52.....	3,561,000	42,000	22,000	2,042,000	5,666,000
53.....	5,437,000	117,000	45,000	2,758,000	8,357,000
54.....	6,827,000	97,000	86,000	2,925,000	9,935,000
55.....	9,110,000	76,000	222,000	3,066,000	12,474,000
56.....	6,853,000	153,000	212,000	3,418,000	10,636,000
57.....	7,603,000	113,000	238,000	3,732,000	11,686,000



(B.)—IMPORTS *from, and* EXPORTS *to, separate Countries* (1854-57).

## I. Imports into Spain from—

	1854	1855	1856	1857
Europe.	£	£	£	£
Austria .....	10,400	14,400	21,000	67,100
Belgium.....	29,200	22,600	32,500	262,000
Sardinia.....	47,300	48,200	109,600	222,600
Hanseatic Towns .....	44,000	—	57,300	176,500
Denmark .....	3,900	28,100	66,000	60,400
Two Sicilies .....	400	4,300	1,400	12,600
Pontifical States .....	36,100	36,500	24,700	57,100
France .....	1,735,900	3,459,600	4,856,500	5,388,100
Gibraltar .....	559,900	399,900	568,200	521,700
Greece .....	—	—	24,700	—
Holland.....	38,200	45,400	50,500	50,100
England.....	1,583,300	1,488,100	1,915,900	3,250,600
Malta.....	600	—	16,700	85,000
Portugal .....	55,300	40,200	50,700	99,200
Russia .....	1,000	4,700	1,600	52,100
English Possessions ....	—	—	—	—
Russia .....	11,800	300	24,000	140,900
Sweden .....	240,800	314,600	284,700	361,900
Tuscany.....	24,000	16,000	47,300	116,600
Turkey .....	—	—	400	56,500
	4,422,100	5,922,900	8,153,700	10,981,000
Asia.				
Philippine Islands.....	252,300	161,700	284,300	225,900
English Colonies .....	100	8,400	11,000	19,300
Zanzibar .....	8,700	12,300	16,500	5,100
	261,100	182,400	311,800	250,300
Africa.				
Algeria .....	3,500	7,200	5,900	28,700
Benin.....	—	—	700	—
Egypt .....	19,700	200	35,500	139,400
Morocco .....	2,700	2,000	52,700	69,600
Portuguese Colonies....	300	1,300	1,100	—
English „ .....	—	—	—	—
Tunis.....	—	—	—	4,300
	26,200	10,700	95,900	242,000

(B.)—*Contd.*—IMPORTS and EXPORTS.

	1854.	1855.	1856.	1857.
<b>America.</b>	£	£	£	£
Brazils .....	64,000	133,700	113,400	87,000
Chile .....	2,200	—	—	—
Equador.....	121,400	76,400	124,600	175,200
United States .....	1,117,200	1,196,900	1,631,500	1,571,400
Guatemala.....	25,100	42,800	38,300	49,900
Haiti .....	—	—	—	—
Cuba .....	1,424,200	1,789,400	1,594,100	1,497,900
Porto Rico.....	61,300	77,200	96,500	88,200
Mexico .....	6,000	7,000	5,200	11,400
New Granada .....	200	400	—	—
Peru .....	86,500	154,900	225,900	14,600
Danish Colonies .....	—	—	—	—
English „ .....	133,200	166,500	256,600	264,400
Portuguese „ .....	—	—	1,000	—
French „ .....	—	—	—	—
Rio de la Plata .....	105,600	134,700	101,800	104,900
Uruguay .....	7,200	38,700	10,400	19,000
Venezuela .....	271,200	268,700	282,800	196,500
	3,425,300	4,087,300	4,482,100	4,080,400

## II. Exports from Spain to—

	1854.	1855.	1856.	1857.
<b>Europe.</b>	£	£	£	£
Austria .....	8,700	1,900	300	20,000
Belgium.....	38,500	74,000	34,400	29,100
Sardinia.....	264,500	382,300	164,700	96,900
Hanseatic Towns .....	140,300	—	148,500	235,500
Denmark .....	109,900	70,300	46,800	52,600
Two Sicilies .....	14,300	14,700	28,400	11,800
Pontifical States .....	8,800	6,200	24,700	13,000
France .....	2,384,200	3,372,700	2,711,800	3,426,600
Gibraltar .....	126,900	249,400	115,200	377,700
Greece .....	—	3,000	—	—
Holland .....	46,300	60,900	27,500	76,900
England .....	3,052,200	4,196,700	2,797,100	2,523,800
Malta .....	15,400	53,200	8,200	8,900
Portugal.....	320,000	379,000	301,300	265,100
Prussia .....	74,100	90,400	20,300	59,300
English Possessions ....	5,900	—	—	—
Russia .....	29,600	21,100	178,700	172,500
Sweden .....	42,800	51,500	64,400	48,800
Tuscany .....	128,700	76,500	160,400	184,400
Turkey .....	15,600	5,200	19,900	100
	6,826,700	9,109,000	6,852,600	7,603,000

## (B.)—Contd.—IMPORTS and EXPORTS.

	1854.	1855.	1856.	1857.
<b>Asia.</b>				
Philippine Islands .....	76,300	66,400	99,800	96,000
English Colonies .....	21,000	9,700	53,500	17,000
Zanzibar .....	—	—	—	—
	97,300	76,100	153,300	113,000
<b>Africa.</b>				
Algeria .....	3,500	7,200	5,900	28,700
Benin .....	—	—	700	—
Egypt .....	19,700	200	35,500	139,400
Morocco .....	2,700	2,000	52,700	69,600
Portuguese Colonies ....	300	1,300	1,200	—
English do. ....	—	—	—	—
Tunis .....	—	—	—	4,300
	26,200	10,700	96,000	242,000
<b>America.</b>				
Brazils .....	90,600	104,600	136,400	169,300
Chile .....	77,900	44,000	66,500	41,700
Equador .....	300	8,000	5,200	5,100
United States .....	573,100	416,600	610,000	679,300
Guatemala .....	700	4,500	2,700	3,700
Haiti .....	—	—	—	—
Cuba .....	1,545,800	1,873,300	1,891,700	2,264,900
Porto Rico .....	64,400	96,800	113,700	76,600
Mexico .....	71,200	94,100	98,700	42,900
New Granada .....	—	—	—	—
Peru .....	36,200	45,200	51,900	36,800
Danish Colonies .....	4,100	7,200	6,600	9,000
English do. ....	50,700	32,300	28,300	40,100
Portuguese do. ....	—	—	—	—
French do. ....	200	—	—	—
Rio de la Plata .....	326,900	226,700	284,000	277,600
Uruguay .....	68,200	54,500	83,400	44,100
Venezuela .....	14,300	58,600	39,300	41,000
	2,924,600	3,066,400	3,418,400	3,732,100



(C.)—*Abstract of ARTICLES Imported into Spain and CUSTOMS DUTIES PAID thereon (1856-57).*

Commodities.	Year 1856.		Year 1857.	
	Value.	Duty.	Value.	Duty.
	£	£	£	£
Grains, seeds, and flour .....	964,000	—	4,603,000	—
Metals in sheets and manu- factured .....	2,724,000	184,400	1,873,000	550,800
Colonial articles of food .....	1,850,200	464,200	1,832,100	468,600
Textile materials .....	2,187,900	179,100	1,654,400	156,200
Woven goods .....	1,568,100	424,200	1,526,500	441,700
Colonial articles <i>not</i> alimentary	866,800	21,500	663,100	23,100
Edible articles of animal origin	578,400	234,700	661,900	263,200
Combustible articles (coals, &c.)	203,800	75,400	282,900	101,000
Wine and spirits ( <i>Caldos</i> ) .....	158,600	31,000	273,400	69,600
Drugs, chemicals, perfumery ....	215,800	35,100	264,300	43,100
Building materials .....	195,100	15,400	258,100	21,200
Cattle .....	188,900	17,800	224,700	20,600
Articles of clothing and per- sonal adornment .....	205,200	31,700	219,600	33,200
Staves and wine barrels .....	76,100	4,600	172,200	16,400
Carriages .....	106,400	16,900	122,400	26,400
Articles of furniture, &c., for houses .....	85,900	17,200	92,900	20,200
Earthenware, china, and glass	79,600	20,800	75,400	20,100
Manures .....	221,200	7,100	15,000	500
Articles not classified .....	548,100	42,600	763,200	88,700
<i>Totals</i> .....	13,024,100	1,823,700	15,578,100	2,364,600

(D.)—*Abstract of ARTICLES Exported from Spain (1856-57).*

	Year 1856.	Year 1857.
	Value.	Value.
	£	£
Products of the cultivation of the vine .....	4,063,200	4,602,400
Produce of the cultivation of cereals .....	1,619,100	1,042,600
„ olive .....	509,000	630,400
Fruits .....	518,300	365,400
Produce of various other cultivations .....	256,400	290,600
„ growing and of rearing animals of every class .....	525,000	706,300
Produce of Forests .....	335,000	383,300
„ Fisheries .....	22,800	51,700
„ Mines .....	1,186,700	1,399,800
Spun and woven fabrics .....	160,900	154,800
Articles of re-exportation .....	159,000	1,235,400
Produce of various industries.....	1,280,700	822,900
<i>Total</i> .....	10,636,100	11,685,700

## (E).—VESSELS entered INWARDS and OUTWARDS (1850-57).

	Year 1850.	Year 1857.	Eight Years, 1850-57.
<b>I. Entered Inwards.</b>			
Spanish, with cargoes, vessels .....	2,567	4,719	29,267
„ tonnage .....	303,742	429,659	2,864,820
„ crew .....	29,005	48,635	303,822
Foreign, with cargoes, vessels .....	1,911	4,944	22,016
„ tonnage .....	270,232	790,333	3,411,681
„ crew .....	15,265	46,091	196,891
Spanish, in ballast, vessels.....	550	864	6,832
„ tonnage .....	28,458	33,204	313,625
„ crew .....	4,639	6,888	53,570
Foreign, in ballast, vessels.....	881	1,252	11,362
„ tonnage .....	106,851	187,478	1,392,843
„ crew.....	7,672	11,915	98,089
<b>II. Cleared Outwards.</b>			
Spanish, with cargoes, vessels .....	2,198	4,483	27,460
„ tonnage .....	250,507	446,995	2,720,912
„ crew .....	25,526	47,777	280,469
Foreign, with cargoes, vessels .....	2,072	3,292	23,086
„ tonnage .....	304,362	527,954	3,259,383
„ crew .....	18,477	33,541	210,347
Spanish, in ballast, vessels.....	249	601	1,765
„ tonnage .....	20,435	44,394	148,356
„ crew.....	2,125	5,194	15,364
Foreign, in ballast, vessels.....	549	1,634	6,804
„ tonnage .....	102,881	252,597	1,100,550
„ crew.....	5,006	13,450	56,923

## (F).—COASTING TRADE of Spain and the Balearic Islands (1857).

The number of coasting vessels, entered *inwards*, with cargoes or in ballast, was 45,520, their tonnage 2,068,447, their crew 321,091.\*

The number entered *outwards* with cargoes or in ballast, was 47,026, their tonnage 1,845,201, their crew 319,722.\*

The total number of Spanish ports from and to which the voyages were made, is 113.

\* The figures in this Return must of course be understood as the *multiples* of the vessels, tonnage, and crew by the number of voyages in the year. The number of coasting vessels was probably about 4,825, *vide ante*, xii (C).

XIV.—*Mint Statistics.*

COINAGE of GOLD and SILVER.—10 years (1849 to 1858 inclusive).

Year.	Gold Coin. Value.	Silver Coin. Value.	Gold and Silver Coin. Total Value.
	£	£	£
1849.....	22,200	145,400	167,600
1850.....	649,000	277,800	926,800
1851.....	121,200	245,400	366,600
1852.....	8,400	322,600	331,000
1853.....	—	367,100	367,100
1854.....	844,700	418,700	1,263,400
1855.....	1,465,200	305,800	1,771,000
1856.....	1,795,000	253,900	2,048,900
1857.....	1,228,600	135,300	1,363,900
1858.....	376,500	379,500	756,000
	6,510,800	2,851,500	9,362,300

There are three mints in Spain, and of the above total of 9,362,300*l.* coined in the ten years, 4,408,200*l.* were from the Madrid mint, 3,300,100*l.* from the Seville mint, and 1,654,000*l.* from the Barcelona mint.

The *copper coinage* was manufactured at Segovia and Júbila, to the extent of 149,000*l.* in the ten years, 1849-1858. Of this amount 96,600*l.* was in the new *decimal coins* of half-reals, quarter-reals, double *décimas*, *décimas*, and half *décimas*.

XV.—*Statistics of Spanish Colonies.*(A.)—CUBA—*Population* (1857-59).

White population in 1859.....	479,491*
Free persons of colour, males† .....	83,124
,,          ,,          females .....	89,460
	172,584
Total free .....	652,075
Slaves‡ .....	371,929
Total population .....	1,024,004

\* Including 86,356 in the jurisdiction of Havannah.

† The enumeration of this part of the population was made at the latter end of 1857.

‡ Enumerated in 1857. These slaves belonged to 51,255 proprietors,



(B.)—CUBA—*Analysis of Slave Population (1858).*

	Males.	Females.	Total.
<b>I.—On Town Properties.</b>			
Able-bodied, above 12 and under 60 years old	21,673	25,291	46,964
Incapacitated                   "                   "	187	204	391
Under 12 years of age .....	7,589	8,325	15,914
Above 60                   "                   .....	1,072	1,185	2,257
	30,521	35,005	65,526
<b>II.—On Country Properties.</b>			
Able-bodied, above 12 and under 60 years old	143,674	76,867	220,541
Incapacitated                   "                   "	208	99	307
Under 12 years of age .....	35,171	33,343	68,514
Above 60                   "                   .....	13,366	5,707	19,073
	192,419	116,016	308,435
<b>III.—General Total, Town and Country .....</b>	<b>222,940</b>	<b>151,021</b>	<b>373,961</b>

(C.)—CUBA.—*Imports and Exports (1856).*

	Under Spanish Flag.	Under Foreign Flags.	Total.
<b>I.—IMPORTS.</b>			
	£	£	£
Spanish .....	83,300	200	83,500
United States .....	—	87,000	87,000
English .....	47,400	16,700	64,100
French .....	23,600	5,600	29,200
German .....	12,900	2,300	15,200
Belgian .....	6,200	300	6,500
Brazilian .....	100	—	100
Spanish American .....	19,100	2,200	21,300
Danish .....	4,100	100	4,200
Dutch .....	500	1,400	1,900
Italian .....	100	200	300
Swedish and Norwegian .....	—	100	100
Austrian .....	—	—	—
Prussian .....	—	—	—
<i>Depositos</i> (bonded?) .....	2,300	1,200	3,500
	199,600	117,300	316,900

Comparing the above figures of 1856, with those of the preceding year (1855), there appears a *decrease* of 6,000*l.* in the imports under the Spanish flag, and an *increase* of 10,900*l.* in the imports under foreign flags. The net increase was therefore 4,900*l.*

(C.)—Contd.—CUBA.—Imports and Exports (1856).

	Under Spanish Flag.	Under Foreign Flags.	TOTAL.
II. Exports.	£	£	£
Spanish .....	46,000	200	46,200
United States .....	200	145,600	145,800
English .....	12,300	57,600	69,900
French .....	2,400	15,200	17,600
German .....	4,500	12,400	16,900
Belgian .....	1,700	1,300	3,000
Brazilian .....	—	—	—
Spanish American .....	3,600	2,200	5,800
Danish .....	700	3,600	4,300
Dutch .....	700	2,100	2,800
Italian .....	3,500	2,400	5,900
Swedish and Norwegian .....	400	1,000	1,400
Austrian .....	—	1,000	1,000
Prussian .....	—	100	100
	76,000	244,700	320,700

The increase of exports in 1856 over 1855, was 3,300*l.* in vessels under the Spanish flag. The exports under foreign flags remained stationary.

(D.)—PHILIPPINE ISLANDS.—Census of 1857.

Number of inhabitants .....	4,319,269
<i>Tributantes naturales</i> .....	1,802,867
<i>Tributantes mestizos de Sangley (half castes)</i> ....	83,106

(E.)—ISLAND of PORTO RICO—Census of 1854.

	Males.	Females.	Total.
Whites .....	119,428	117,248	236,676
Mulattos .....	89,115	90,980	180,095
Free Blacks .....	14,228	14,204	28,432
Slaves .....	25,156	21,762	46,918
	247,927	244,194	492,121

XVI.—Concluding Remarks.

In a review like the preceding, touching upon so many varied subjects of inquiry, the several conclusions arrived at have been noticed, *seriatim*, in the separate sections of the arrangement and in the same pages as the figures from which those conclusions originated.

It is usually convenient, in general reviews of the kind, to annex a final condensed recapitulation of the results, for facility of reference. On the present occasion, however, the results are too numerous to admit of such a plan being carried out. A few observations will, therefore, be offered in its stead, referring to two or three points upon which some further explanation suggests itself.

The Population of Spain at the Census of 1857 shows an *apparent increase* of no less than 4,522,000 souls above the incorrect estimate of the year 1850. But this is not the real increase. It is obviously impossible for the population to have augmented by 42 per cent. in seven years. At the same time all collateral testimony is to the effect that the population, as well as the material progress of Spain, took a decided and very remarkable start in the septennial period 1850-57. The exact increase in the period, so far as concerns population, is not ascertainable in the absence of correct enumerations before 1857; neither can it be checked by the ordinary formulæ, as no accounts of the numbers of births, deaths, and marriages, or of the immigration and emigration, can be obtained.

The prevalent impression as to the population of Spain immediately prior to the publication of the results of the Census of Spain for 1857, was a *guess* that it was about 12 millions, but the Census Returns show that it was nearly  $15\frac{1}{2}$  millions at the time—a number of inhabitants about equal to the population of Great Britain and Ireland in the year 1800. If the result of the wisdom of the Spanish Government in at length having become alive to the necessity of adopting correct statistical methods consisted in nothing else than the correction of this single error, there would be ground for satisfaction on their part at the steps which have been taken; but the reward has been larger, as the excellent collection they have had made of statistics of other kinds will be useful in many other respects. Nevertheless, there is one element of incompleteness in the want of records of the numbers of *births, deaths, and marriages*, as already reiterated. It would be well, too, if the *causes of death* could be obtained. In a statistical system so well commenced there would not be any insuperable obstacle in this, and it would be interesting to compare such returns for a warm climate like Spain with those for a comparatively cold climate like England.

Spain is so much less densely peopled than England and Wales that the space which in the former country contains on the average one person has four persons in the latter country. This is explained, to some extent, by the circumstance that the *uncultivated land* in Spain constitutes no less than about 46 per cent. of the whole area. Nevertheless, it is not to be assumed that all this extent of uncultivation is to be reprobated as the fault of the Spaniards, as it has been too much the fashion of travellers (who, as a class, are hasty



observers,) to allege. A very liberal abatement should be made from this disposition to find fault at scanty cultivation in countries with so varied a climate as Spain, where, in many parts, the sun has great power upon a soil of a dry and hot nature with scanty irrigation, where the waste-lands are frequently too sterile to repay cultivation, and where the past history of the country, apart from an endless involvement of political disturbances, gives evidence of the effects of a bad system of too large proprietorships of land, of non-inclosure as a custom, and of almost entire absence in many districts of proper means of communication. It must be recollected that the Spaniards are only just commencing the "war against the wilderness" at home; yet, even at the opening of this campaign, the prospects of their position are far from unfavourable.

The several measures which have been set on foot to improve their opportunities have been referred to more at length in the preceding statistics, and they indicate that the Spaniards have of late years shown themselves by no means idle in opening up new roads, railroads, and other improvements of modern science, in expending considerable amounts for reproductive public works, such as drainage, canalization, &c., and in fostering industrial and credit associations.

If it be asked, what have been the results? the answer is, let the commercial statistics be first referred to. There it will be found that the *Imports* into Spain from all parts of the world which in 1850 amounted to 6,720,000*l.* amounted to 15,554,000*l.* in 1857. This was an *increase* of no less than 131 per cent. in seven years. Again, the *Exports* from Spain to all parts of the world in 1850 were 4,887,000*l.*, and in 1857 they were 11,686,000*l.*, being an increase of 139 per cent. in the seven years.

Or, as is frequently done in showing the progress of commerce, take the Spanish imports and exports *together*, and it will be seen that in 1850 they amounted to 11,607,000*l.*, and in 1857 to 27,240,000*l.*, an augmentation of nearly 135 per cent. in seven years. This is a very wonderful increase, and many persons are still to be found not at all prepared to learn that the trade of the Peninsula with foreign countries should have been so far on its way to treble itself in so short a period, or, if we analyze the figures more closely, that it should have doubled itself within the six years 1850-56.

In the "Abstract of Articles Imported and Exported," it will be noticed that Spain exported in one year (1857) 4,602,400*l.* worth of the produce of the cultivation of the vine; 630,400*l.* worth of produce of the olive; 368,400*l.* worth of fruits. This will give a certain approximate notion of the *surplus* productive powers of the Spanish soil in special articles of daily consumption alone. It would thus appear that, after supplying its home markets, there was an export of 5,598,200*l.* worth of these articles of food. In

this statement, the export of produce of the cultivation of cereals is not included, inasmuch as against it would have to be placed the imports into Spain, of grain, seeds, and flour, in which articles in fact the fluctuations of harvests and prices of grain and meat, and the variation of stocks in hand in granaries, &c., are too wide to enable a conclusion to be drawn from the mere figures of a year.

In referring to this gratifying fact, that Spain is able to export so large a surplus stock of the produce of the vine, olive and other fruits, it is desirable to repeat briefly what is more fully discussed under the head of CULTIVATION OF THE VINE (in Section III, of this Paper), viz., that a largely increased cultivation of the vine, and a profitable production of a better class of wine for the English and other markets, may be promptly effected, particularly if the Spanish Government should boldly determine to gradually substitute an approach to a Free Trade Tariff in place of its vain and futile attempts to perpetuate national protected monopolies.

The *Naval Statistics* of Spain, as given in tolerably full detail in this paper, shows that, although the Spanish Navy is not, relatively to the Navy of other countries, so powerful as it was at the end of the last and commencement of the present century, it is receiving the anxious and careful attention of the Government; besides which, it must be kept in mind that there has subsequently been started a very important project for the provinces of Spain to separately contribute to the reorganization of the Navy by a revival of the English seventeenth century system of ship-money assessment.

As regards the *Army Statistics* of Spain, it is particularly observable that the expenses of the force, as returned by the Government, are extraordinarily low. It is frequently objected that economy in military expenditure is a delusion, and that the most expensively kept soldier is the cheapest in the end. The recent experience of Spain leads to some question as to the soundness of such a conclusion. The Spanish soldier who costs his country so little, has, in the recent campaign in Morocco, shown not only the hereditary courage of his race, but also that he is quite on a level, in military education, discipline, and *physique*, with the best troops of other European powers.

It is to be hoped, however, that the success of her enterprise against the Moors will not tempt Spain to grasp at the shadow of foreign territorial aggrandisement, in preference to that substantial good, which the excellent and persevering qualities of her people would secure for them, when directed to a more assiduous cultivation of the arts of peace, and to restoring their country to its old celebrity as a prosperous, well-peopled and powerful section of the European family of nations.

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EXTRACTS *from the TABLES and OFFICIAL INFORMATION respecting the PRUSSIAN STATES for the Year 1849, published by the STATISTICAL DEPARTMENT at BERLIN, and a few REMARKS by the TRANSLATOR. Contributed by SIR FRANCIS HENRY GOLDSMID, BART., M.P., Q.C.*

[Read before the Statistical Society, of London, 15th November, 1859.]

As the publication just referred to comprises several quarto volumes, each containing some hundreds of pages, it is hardly necessary to mention that the paper which I submit this evening to the attention of the Society can but touch a few portions of the ample field occupied by the labours of the Statistical Office of Prussia.

The volume which I have chosen for my extracts is the second, which embraces the returns of Births, Marriages, and Deaths, and observations made by the Editor on these and on the returns for former years; and I have endeavoured to select from this volume some matters that may be of interest, either in themselves or as affording means of comparison with similar things in England.

The editor makes, on what he regards as the four most important questions in relation to births, the following remarks as introductory to two tables intended to furnish answers to these questions:—

“1. What is the proportion of Births to the population?”

“When the population is thin the number of births usually bears a large proportion to the number of inhabitants, especially if the means of the people are rapidly improving. In densely populated districts, and when the opportunities of profitable employment are not increasing quickly, the proportion of births is smaller. These proportions, however, are often greatly modified by particular circumstances. Though the population be already dense, the proportions of births to the number of individuals may still be large, if an abundance of raw material, if large branches of trade newly established, open fresh sources of gainful occupation, and on the other hand, though the population be already thin, the declining prosperity of a country may reduce the proportionate number of births.

“2. What is the proportion of *male* to *female* births?”

“Statistics have long since established, as a general law, that male births are more numerous than female. The ordinary average is 105 or 106 boys to 100 girls. There are, however, particular years and districts in which variations from this proportion occur, but mostly to a small extent only.

“3. What is the proportion of Legitimate and Illegitimate births?”



"The answer to this question does not lead to considerations referring to the nature of man generally (like the proportion between male and female births), but rather depends on particular circumstances of civilization and society. In this respect the greatest differences exist among different European States: the proportions are so various, that whilst in England it is computed that 1 child out of 20 is illegitimate, the illegitimate births in Bavaria are as many as 1 out of 3 or 4; whilst the children born out of wedlock are in London 1 out of 20, they are in Paris and Vienna fully 1 out of 3, and in Munich years have even occurred when the illegitimate births have been more numerous than the legitimate. It would not be safe immediately and unconditionally to conclude that these proportions represent the degrees of morality of different populations. There may be considerable immorality where there are few illegitimate births, and, on the other hand, the frequency of such births may be increased by external circumstances. No doubt, however, can exist that a large number of illegitimate births is a misfortune for the nation where it occurs. The causes of the variations referred to have been sought in differences of religion (which can scarcely be considered as affording in most instances the real explanation),—in the laws on paternity, which may certainly exercise a perceptible influence,—and in administrative regulations, creating obstacles to the establishment of tradesmen in towns, and to the acquisition, by persons inhabiting the country, of land for cultivation. So far as respects Bavaria, it is highly probable that the large proportion of illegitimate births is, in great measure, due to the last cause, since persons employed in trade, and desiring, but not permitted, to establish themselves, and peasants who are not allowed to acquire land, often live for years as husband and wife, but without wedlock, or, as they phrase it, in 'wild marriage.'

"In various districts, again, popular opinion, regarding with more or less censure the pregnancy of unmarried women, has some effect in diminishing or increasing the evil; . . . . . and often, probably, it is to the combination of several different causes that the large number of children born out of wedlock is to be ascribed. In these inquiries the differences between town and country are highly important.

4. "What is the proportion of males and females among Illegitimate births?

"It has been already remarked, as a general law, that male are more numerous than female births, and that the average excess is from 5 to 6 per cent. But in connection with this law is to be noted the singular fact, that though among illegitimate births as well as among others the male outnumber the female, yet this excess is smaller among the illegitimate births than among the legitimate.

For example, if among 2,060 new-born children there were 165 illegitimate and 1,895 legitimate, there would probably be among the latter about 920 girls and 975 boys, which would be in the proportion of 100 to 105·98. But among the 165 illegitimate children would be found about 81 females and 84 males, or in the proportion of 100 to 103·7; giving us the numbers for the whole of the 2,060 children 1,001 girls and 1,059 boys, being in the proportion of 100 to 105·79."

Of this almost constantly recurring fact, the learned editor observes that several explanations have been attempted, and he proceeds to state some of these, of which however he himself remarks, that they are mere guesses; and they scarcely appear to me worth the attention of the Society.

But he adds one hypothesis which he seems to consider more probable than the rest, and which I shall therefore mention.

"If," he says, "it should prove to be generally true, though at present it is not statistically proved to be so, that the fruit of a first pregnancy is oftener female than male, this would explain the smaller preponderance of males among illegitimate children,—most of whom are the fruits of first pregnancies. Here we can merely establish the fact itself, so far as relates to the Prussian States. It will, however, be remarked that the smaller preponderance of males among the illegitimate children has no constant proportion, the girls being to the boys generally, but not everywhere nor in every year, about 100 to 102 or 103."

The Tables (A) and (I) exhibit the proportions above distinguished by the numbers 1, 2, 3, 4, as ascertained for the whole of the Prussian dominions in every year in which the census has been taken, and for each governmental division.

The editor then adds further observations on the questions distinguished as 1, 2, 3, 4.

### *Births.*

#### *"1. Proportion of births to population.*

"The returns for the whole of Prussia show that from 1810 to 1825 this proportion was about 1 to 23, from 1828 to 1846 about 1 to 25 or 26, but that in 1849 it again reached about 1 to 23. In the years from 1828 to 1846 the progress of the population was evidently such that the number of births diminished as compared with the whole number of individuals. From 1846 to 1849 the population made a proportionally small progress, while the increase in number of births did not diminish, and the proportion of births to population therefore increased. The proportions are very different in different governmental districts. In Westphalia, especially in



Münster and Arnsberg, in the whole of the Rhenish provinces, in the thickly peopled divisions of Erfurt, Magdeburg, Liegnitz, as well as those of Stralsund, and of Potsdam, with Berlin, the proportion of births is smaller.

“In these parts of the kingdom it is difficult to establish a household and to maintain children, so that marriages are contracted with more caution. On the other hand, in Gumbinnen, Königsberg, Bromberg, &c., where the population is still thin, the proportion of births is larger.”

After some observations on remarkable differences in the proportions of births in different governmental sub-divisions, the Editor proceeds as follows:—

“Although it may be laid down as a general rule, that where there is a dense population and industrial occupations have nearly attained their full development, the proportion of births is smaller than where the population is thin, and industry is still far from the development of which it is susceptible; yet this rule is subject in particular cases and districts to most important exceptions. The most nearly constant reason for a larger or smaller proportion of births is to be found in the increase or diminution of industrial activity, of energy in the population, and of opportunity for earning.

“With respect to towns, however, and especially to the larger towns, the result is materially affected by another circumstance. The returns show, that in the whole kingdom the proportion of births is in towns as 1 to 25·68, in the country as 1 to 22·88, of the population. In particular governmental divisions and sub-divisions similar differences are to be found between the urban and the rural population. The reason is probably this. The large towns are inhabited by considerable numbers of young people of both sexes, as mechanics, factory operatives, messengers, &c., who are unmarried and do not reside in families. The number of inhabitants, with which the number of births is compared, is therefore considerably greater than in purely rural districts, in which a larger proportion of the inhabitants reside in families. In the country even most of the day-labourers are married. Berlin has 423,900 inhabitants; the families enumerated are 64,405; if each family is reckoned as comprising five individuals, this gives 322,025 persons. The number of births in Berlin was, in the year 1849, 13,760. This, taken in connection with the number of persons living in families, gives one birth to 23·33 persons, which does not materially differ from the proportion of births to the whole population in rural districts, whilst the proportion of births to the whole population in Berlin is as 1 to 30·81.

“If the proportions of births be distinguished according to the different religious communities to which the individuals belong, the



returns of the whole kingdom for every third year from 1831 inclusive, give us these results.

“The proportion of Births to individuals was, in the years and among the religious communities specified below, as one to the following numbers:—

In the Year	Protestants.	Catholics.	Mennonites.	Jews.
1831 .....	26·54	26·52	33·61	30·61
1834 .....	24·64	23·96	29·34	27·80
1837 .....	25·70	24·51	27·56	28·23
1840 .....	26·02	24·43	30·93	27·61
1843 .....	25·93	25·00	22·68	27·19
1846 .....	25·92	25·34	33·48	27·39
1849 .....	23·88	23·03	30·01	28·81

“Among Protestants and Catholics the proportions are nearly the same.

“Among the Mennonites the proportion of births is generally smaller, though particular years furnish exceptions to this rule. The latter circumstance is to be explained by the fact, that the whole number of this sect being small, the occurrence of a few births more than usual disturbs the average. The ordinarily small number of births amongst them appears to be attributable to the circumstances that they live in separate settlements, have no free alienation of landed property, and marry only among themselves.

“The proportion of births is also smaller among the Jews than among the population generally. The number of Christians in the whole kingdom is 16,066,240, among whom the number of married couples is, 2,657,004, giving a proportion of about 605 to 100. The number of Jews in the kingdom is 218,773, and the number of married couples among them 33,301, giving a proportion of about 657 to 100, so that proportionately more Jews than Christians appear to remain unmarried.”

It will be observed that no explanation is here offered of the comparative paucity of Jewish Marriages in Prussia. I apprehend, however, that the real reason of this, and perhaps also in part of the small proportion of marriages among the Mennonites, is to be found in the facts that in many portions of the Prussian dominions the permission of the municipal and governmental officers is required for marriages, and for the establishment of tradesmen,—that some employments are still forbidden to the Jews,—and that even where the law does not prescribe distinctions among different religious

communities, the requisite permissions are in practice more grudgingly afforded to the less favoured sects.

*" 2. Proportion of male to female births.*

" In the whole kingdom the excess of male above female births appears to have been ever since 1816 very nearly uniform at about 6 per cent., with scarcely any other exception than that of the year 1846. This, however, is almost the only result with reference to these comparisons which can be considered as fully established. Differences may indeed be observed, if the results be compared for various governmental divisions: and some of these differences are not insignificant, the proportion in Marienwerder being, for instance, 108·83 to 100, and in Düsseldorf only 103·74 to 100. In the table for 1849, it may be further observed, that in the eastern provinces generally the excess of male births is greater than in the western, but a comparison of earlier years shows that a similar excess has occurred in the western provinces.

*" 3. Legitimate and illegitimate births.*

" The numbers for the whole kingdom afford the remarkable result, that great as has been the advance of population since 1816, and loud as are the complaints of increasing immorality, the proportion of illegitimate to legitimate births has remained the same for thirty-three years. In 1816 the illegitimate children were to the legitimate as 8·05 in 1849 as 7·96 to 100. In other words, in 1816 1 out of 13 or 14 children (more accurately 1 out of 13·42) was illegitimate, and in 1849 still 1 out of 13 or 14 (or more accurately 1 out of 13·56) was an illegitimate child. Indeed the proportion was in 1849 somewhat more favourable than in 1816. There have been occasional variations, and 1828 was the most favourable year. But these variations are not important; and it may be stated with tolerable certainty, that in the whole kingdom the proportion of illegitimate to legitimate births has, since 1816, remained unchanged. There are, however, great differences between the different governmental divisions. In Westphalia, in the province of Posen, and the Rhenish provinces, the proportion of illegitimate births is only about half as great as in the other parts of the kingdom: and this difference has remained constant for many years. It cannot be denied that the principal reason is to be found in the laws which in many parts of Westphalia, near the Rhine, and in Posen, do not allow to the mothers of illegitimate children a legal remedy against the fathers, or at least do not facilitate proceedings for that purpose, as is done in other provinces. It is important, as to this matter of illegitimate births, to consider the great towns separately from the country. In these towns, also, the proportion has remained for many years substantially the same."



Further details may be collected from Table (C), in which, for the most part, 1816 exhibits a larger proportion of illegitimate births, but for the remaining years the proportions remain tolerably uniform.

“In Towns where many young unmarried persons of both sexes reside, the proportions are always more unfavourable than in the country, where at least oftener than in towns, the fault of illicit intercourse is repaired, as far as may be, by subsequent marriage. This prevalence of unfavourable proportions in towns is clearly shown by the preceding table; and it may be further remarked, that among the town-population of the whole kingdom there is one illegitimate birth out of 9·38; among the rural population one out of 14·18 only.

“In different governmental sub-divisions the proportions of illegitimate births to legitimate are materially different, whilst in the same districts the proportions, though with a certain amount of variation in different years, often remain substantially the same. Hoffmann has directed attention to the fact, that in the neighbouring sub-divisions, Altena and Wittgenstein, in Westphalia, the proportions exhibit a large difference; and he remarks that the population of Altena is largely employed in manufactories, that of Wittgenstein much less so, but that illegitimate births are far more numerous in the latter than in the former.”

A table is then given which exhibits these contrasts between adjoining sub-divisions, from which I think it will be sufficient to cite two or three of the most striking instances.

In Mannsfeld-Berg, in the province of Saxony, the percentage of illegitimate births was in 1816, 10·20; in 1825, 6·88; in 1834, 6·41; in 1843, 6·66; and in 1849, 6·58.

In Delitsch, in the same province, the percentages for the same years were 13·24, 16·15, 14·27, 14·00, and 13·42, or for all but one out of these five years more than double the percentages of the neighbouring sub-division.

“In Altena, the percentages during the five years already mentioned were 2·48, 1·73, 1·26, 1·59, and 0·76: in Wittgenstein, 24·11, 24·30, 22·63, 14·35, and 12·64, or more than ten times the Altena percentages.

“In Saarbrücken, near the Rhine, the percentages were 3·33, 8·04, 5·88, 4·85, and 5·98. In Bittburg, in the same district, the percentages were, 2·81, 2·11, 1·94, 2·27, and 1·88, or with one exception about one-half or one-third of those in Saarbrücken.

“The comparisons of the proportions of illegitimate births with reference to the religious communities to which the parents belong give the following results:—



*One ILLEGITIMATE Birth occurred for the following numbers of Legitimate Births among—*

In the Year	Protestants.	Catholics.	Mennonites.	Jews.
1831 .....	11·27	16·48	108·75	54·21
1834 .....	10·97	16·05	53·11	54·68
1837 .....	11·32	16·76	39·46	45·78
1840 .....	11·57	16·73	92·60	47·61
1843 .....	10·92	16·43	72·00	47·07
1846 .....	10·87	16·09	85·80	43·83
1849 .....	10·78	16·35	57·88	40·09

“ From this, at first sight, it might be inferred with respect to the principal divisions of Christians (Protestants and Catholics), that since among the former there is a greater proportion of illegitimate births, their religious belief is the real cause of the difference. But in opposition to any such inference it is to be observed, that in Bavaria, which is chiefly Catholic, in the principally Catholic cities of Munich, Vienna, and Paris, illegitimate births are far more frequent than in Berlin or any Protestant city of Prussia. In the Prussian States the coincidence occurs, that the provinces in which there is a preponderance of Catholics, (the Rhenish districts, Westphalia and Posen,) are also those in which the law either does not recognise, or at least renders it difficult to assert, any right of the mother of an illegitimate child against its father.

“ In these provinces themselves the proportion of illegitimate births is sometimes greater among the Catholic inhabitants, sometimes among the Protestants, as is shown by the Table (E).

#### *Deaths.*

*“ Deaths considered with reference to Age and Sex.*

“ The number of deaths compared with the number of births gives the increase of population, as it would be without emigration and immigration.

“ If the percentage, according to this comparison, were found to remain the same during a series of years since 1816, we might conclude, that at least in Prussia for thirty-three years the rate of increase of the population had been uniform, and what that rate had been. If in making this comparison we at the same time observe the numbers of deaths of persons of each sex, we shall perceive how

the excess of male births is counterbalanced by the excess of male deaths.

In 1849 the number of deaths was.....	498,862
"          "      births  ,, .....	691,562
Excess of births .....	<u>192,700</u>

The proportion of 498,862 to 691,562 is as 100 to 138·6.

“ Distinguishing between the sexes, there were—

Born in 1849 .....	355,495 Males
to 1844 .....	336,067 Females.
Excess of male births	<u>19,428</u>

And there died .....	256,344 Males
	242,518 Females.
Excess of male deaths	<u>13,826</u>

The proportion of 336,067 to 355,495 is as 100 to 105·78.  
    ,,          ,,  242,518  ,,  256,344  ,,  100  ,,  105·71.

“ The excess of male deaths was, therefore, proportionately about the same as that of male births.

“ Throughout all the periods of enumeration, we find in Prussia, not indeed a uniform proportionate excess of births above deaths (this excess being greater in the earlier years) but a remarkable uniformity in the proportionate excess of male deaths as compared with the proportionate excess of male births.”

Further particulars appear from Table 5. Various details are then given as to the ages at which principally the excess of male above female deaths takes place; but these, though not uninteresting, I pass over, in order not to take up too much of the time of the Society, and add merely the general conclusion derived from them, before proceeding to the more important subject of the proportion of annual deaths to the population.

“ More boys are born than girls, the excess being between 5 and 6 per cent. Boys and young men die more quickly than females of the same ages. Below the twentieth year there is in the population a majority of males. This majority is greatest in the earliest years of childhood, and gradually diminishes, until, between the ages of 25 and 30, the numbers of each sex are nearly equal. From about the thirtieth year to the fortieth more women die than men.

“ The small excess of the male sex that thus arises is overbalanced by the number of deaths of men far exceeding those of women between the age of 40 or 45, and that of 55 or 60.

“ Beyond the age of 45, but more decidedly beyond that of 50 or 60, the number of women in the nation is greater than that of men ; therefore it is, that at the more advanced periods of life (beyond 55 or 60) every quinquennial period comprises more female than male deaths. If the population is divided according to periods of life comprising twenty years each, the 16 millions will be distributed as follows :—

Under 20 years of age .....	7,300,000	or 46·65 per cent.,	among whom there is an excess of males equal to about 800,000.
Between 20 and 40 years .....	5,100,000	„ 31·87 per cent.	Probable excess of males 200,000.
„ 40 „ 60 „ .....	2,800,000	„ 17·50 per cent.	
Above 60 years .....	800,000	„ 5 per cent.	Probable excess of females 100,000.
Total .....	16,000,000		

“ Of those who die in the year nearly one-third are less than a year old. Above this age the proportion of deaths diminishes ; it is small between 10 and 14, and continues so up to 20 ; between 20 and 25 the proportion increases, but it is again smaller up to 40 ; from 40 to 60 the proportion is much greater, especially among males. As a small part of the population is above 60, and a still smaller attains the higher decennial period, the numbers of deaths for the more advanced periods of course gradually diminish.”

Tables illustrating these remarks are then given for several different years, but it will probably suffice to place before the Society the table for 1849. (Appendix F).

#### *Rates of Mortality.*

“ A comparison of the number of deaths to that of the population for the whole of the Prussian dominions in different years since 1816 gives the result that the annual proportion of deaths to individuals varies between 1 to 28 and 1 to 37.

“ The years 1819, 1831, 1834, 1837, and 1849, exhibit a higher proportion of deaths than other years which have been made the subject of comparison,—the cholera year, 1831, showing the highest proportion of all.

“ This appears from the following table :—



In the Year	Number of Deaths.	Average Number of Individuals among whom One Death occurred.
1816.....	287,101	36·05
1819.....	334,483	32·83
1822.....	314,524	37·09
1825.....	327,354	37·44
1828.....	372,880	34·13
1831.....	462,665	28·18
1834.....	424,013	31·86
1837.....	438,624	32·14
1840.....	418,624	35·66
1843.....	444,573	34·80
1846.....	473,149	34·05
1849.....	498,862	32·74

“ If the proportions are arranged for several years according to provinces, we find pretty constantly that the results are more favourable for Brandenburg, Pomerania, Prussian Saxony, Westphalia, and the Rhenish Provinces, than for Prussia proper, Posen, and Silesia, as appears from Appendix (G).

“ Employment in agriculture or manufactories is clearly not the circumstance that determines the rate of mortality,—for the Rhenish provinces and Silesia are both manufacturing districts, but have very different rates of mortality. It is not to be denied that greater prosperity and improvement in the habits of the lower classes have a tendency to diminish the proportion of deaths. Yet it may be observed that the circumstances of the people are certainly more prosperous in the Rhenish provinces than in many parts of Pomerania, and yet the rate of mortality in Pomerania is not greater, indeed on the whole it would seem somewhat less, than near the Rhine. Von Humboldt is of opinion that the difference of races has an influence on the rate of mortality, and the preceding table may be thought to support this view. Where the majority of the population is Slavonic, the proportion of deaths is larger than where the inhabitants are of purely German descent.

“ In order to explain, in any particular case, the rate of mortality, it is probably necessary to take into consideration several different causes. For the purpose of supplying materials towards resolving these questions, which at present have not been satisfactorily answered, the subjoined Table (H) has been drawn up, exhibiting the rates of mortality in 1849 in the different governmental divisions, in town and country, and among the different religious communities.

“ The religious denomination appears to have little influence on the rate of mortality, if it is borne in mind that anything observed with respect to small numbers like those of the Mennonites and

Jews, cannot lead to any general conclusion. The proportion among Protestants is certainly, however, on the whole, more favourable than among the Catholics. But it may be considered a general rule that the rate of mortality in towns is rather greater than in the country.

“In order further to elucidate this, we give the proportions for several years in the ten largest towns in the kingdom.”

*General Remarks.*

Having now completed the extracts which I purpose to lay before the Society, I add a few observations on that portion of these extracts which relates to the rates of mortality in Prussia.

It will have been noticed that the Berlin Editor views with some favour a hypothesis for which he cites the high authority of Von Humboldt, that the difference of races has a perceptible influence on the rates of mortality, and that the editor states in confirmation of this, that in those parts of the Prussian dominions where the majority of the population is Slavonic, the proportion of deaths is larger than where the inhabitants are of purely German descent.

Now I hope it is not inconsistent with the respect due to the opinion of so great a man as Von Humboldt, to say that there appears to be much ground for doubting whether good drainage, ventilation, and water supply, have not more to do with diminishing the rate of mortality than the most purely Teutonic ancestry.

Although the population of England is considered to be mainly of Anglo-Saxon race, we cannot, I presume, regard it as more German than the population of Prussia. Nor would the statisticians of Berlin hold the races that people the Prussian dominions to be inferior to those which inhabit France; yet the average annual mortality of England (which seems to be but slightly less than that of France), was, for the ten years ending in 1849, about 1 in 44,—a rate considerably below that which prevailed in Prussia\* in 1825, the very healthiest of the twelve years to the averages of which our attention has been directed.

And again, if we take the five years as to which we have the rates of mortality for the eight great provinces of Prussia, we find that it is only in that same healthiest year, 1825, that three of these eight provinces were favoured with rates of mortality smaller than the average English rates, and that in the course of the other three years one only of the eight Prussian provinces was once so fortunate as to fall below the average rate of English mortality.

Any support for the doctrine of influence of race on mortality which might have been afforded by the small proportion of deaths

\* In comparing Prussian with English tables of mortality, about one-eighteenth should be deducted from the Prussian returns of deaths, in consequence of their including, and the English not including, the still-born.



among the Jews the Berlin Editor rejects, with the observation that their numbers are too small to lead to any general conclusion. I think, however, when we find, that in every one of the twenty-five governmental divisions of Prussia the rate of mortality among the Jews was in 1849 considerably smaller than among the general population, and that for the whole State the difference was as great as between 1 to 32·74 and 1 to 40·69, or nearly one-fifth; the circumstance that the total number of Jews in Prussia is not much above 200,000, is insufficient to prevent us from arriving at the conclusion that there must be *some* cause for a variation so general and so considerable between the proportion of deaths among them and that among the entire population. What this cause is we do not appear to have sufficient materials for determining. It seems improbable to me that it is to be sought in difference of race; and I merely suggest for consideration, whether their peculiarities as to diet, and their superior temperance even among so temperate a people as the Germans, may in part account for their smaller mortality.

On the more important question of the reasons of the large proportion of deaths in Prussia generally, we shall, I think, have less difficulty, without resorting to diversity of race, in arriving at least at some probable conjectures.

In addition to the comparisons with England already suggested, it may be noted that the smallest annual rate of mortality mentioned for any part of Prussia exceeds 1 in 45, or (deducting the still-born) 1 in 48, whilst in parts of England it has fallen below 1 in 55.

If we compare the capitals, we shall find the average annual mortality of Berlin for the five years mentioned, to exceed 1 in 35, or (with the above-mentioned deduction) 1 in 37, whilst in London the average is about 1 in 40.

If we compare Posen, a remarkably unhealthy Prussian town, with Liverpool, which before its recent improvements had earned a similarly unfavourable distinction in England, the average Posen rate will appear to have exceeded 1 in 26, or (with the same deduction) 1 in 27½, and that of Liverpool to have been about 1 in 29.

Even in Potsdam, the most healthy of the eight Prussian towns mentioned, the average rate of mortality for the four years referred to was scarcely less than 1 in 40, or (deducting still-born children) 1 in 43, which is decidedly above the mortality of the healthiest English towns.

Again, if we compare the Prussian towns among themselves, we shall find Breslau and Posen at one end of the scale and the comparatively clean and well-drained Potsdam at the other, while Berlin and Cologne are near the middle, but the former is superior to the latter.



With reference to our own country, the fact that in several places improvements in drainage, ventilation, and water supply, have been followed by diminished mortality, has forced upon us the conclusion that these are among the circumstances most material to the diminution of disease and death.

In what has been observed respecting Prussia, we shall, I believe, discover nothing inconsistent with a similar conclusion there.

Some of those present may perhaps remember the epigrams in which Coleridge has commemorated the regale received by his sense of smell during his visit to Cologne. Many who have visited the Prussian dominions more recently will have remarked, that notwithstanding late ameliorations Cologne still deserves a portion of the renown thus acquired, and that similar celebrity is even better merited by other great towns of Prussia.

There can be no doubt, in fact, that partial and imperfect as drainage and water supply are in our towns, the condition of Prussia in these respects is considerably worse.

How far greater variations of temperature and inferior diet may have a share in producing in Prussia a greater death-rate than exists in England, I abstain from suggesting any opinion. But I venture to think that our experience here may justify us in attributing a part, at least, of that disadvantage to badness or absence of drainage and imperfection of water supply, and in hoping that our Prussian neighbours, as well as ourselves, may give strenuous attention (each according to the necessities of the case, and the means at hand for meeting them), to the removal of evils so incompatible with a good state of the public health.

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# APPENDIX.

(A.)—Table of BIRTHS during Twelve Years, showing proportions of Births to Population, of Males to Females, and of Illegitimate to Legitimate Births in the Whole Kingdom of Prussia.

In the Year.	Boys.	Girls.	Total.	Among these were Illegitimate		
				Boys.	Girls.	Total.
1816....	230,105	217,947	448,052	16,885	16,503	33,388
1819....	253,395	239,404	492,799	17,284	16,841	34,125
1822....	258,523	244,439	502,962	18,260	18,028	36,288
1825....	268,921	254,732	523,653	18,677	18,256	36,933
1828....	257,396	242,111	499,507	16,433	15,826	32,259
1831....	252,164	238,398	490,562	17,897	17,209	35,106
1834....	286,188	270,454	556,642	20,684	20,066	40,750
1837....	287,122	270,771	557,893	20,199	19,302	39,501
1840....	302,094	285,181	587,275	20,795	20,153	40,948
1843....	310,655	293,817	604,472	22,388	21,630	44,018
1846....	321,159	305,265	626,424	23,568	22,540	46,108
1849....	355,495	336,067	691,562	26,140	24,871	51,011

In the Year	Average Number of Individuals among whom one Birth occurred.	Average Number of Male Births for every 100 of Female Births.	Average Number of Illegitimate for every 100 of Legitimate Births.	Proportion of Males to Females among Legitimate Births. Number of Males for every 100 of Females.	Proportion of Males to Females among Illegitimate Births. Number of Males for every 100 of Females.
	One birth in	Mls. p. 100 Fmls	Ill. p. 100 legt.		
1816....	23·10	105·58	8·05	105·85	102·31
1819....	22·28	105·84	7·44	106·09	102·63
1822....	23·19	105·76	7·78	106·12	101·29
1825....	23·41	105·57	7·59	105·82	102·31
1828....	25·48	106·31	6·90	106·49	103·84
1831....	26·58	105·77	7·71	105·91	104·00
1834....	24·27	105·82	7·90	106·04	103·08
1837....	25·27	106·04	7·62	106·15	104·65
1840....	25·40	105·93	7·50	106·14	103·19
1843....	25·60	105·73	7·85	105·91	103·50
1846....	25·72	105·21	7·94	105·26	104·56
1849....	23·62	105·78	7·96	105·83	105·10

(B).—Table showing proportions of Male and Female Births and Deaths for Twelve Years.

In the Year	Births. No.	Deaths. No.	Number of Births for every 100 of Deaths.	Births.		Number of Male for every 100 of Female Births.	Deaths.		Number of Male for every 100 of Female Deaths.
				Males. No.	Females. No.		Males. No.	Females. No.	
1816 .....	448,052	287,101	156.06	230,105	217,947	105.58	148,014	139,087	106.42
1819 .....	492,799	334,483	147.33	253,395	239,404	105.84	170,874	163,609	104.44
1822 .....	502,962	314,524	159.91	258,523	244,439	105.76	161,252	153,272	105.21
1825 .....	523,653	327,354	159.97	268,921	254,739	105.57	168,941	158,413	106.65
1828 .....	499,507	372,880	133.96	257,396	242,111	106.31	192,389	180,491	106.59
1831 .....	490,562	462,665	106.03	252,164	238,398	105.77	240,342	222,323	108.10
1834 .....	555,282	433,189	131.21	285,495	269,787	105.82	218,108	205,081	106.35
1837 .....	557,893	438,603	127.20	287,122	270,771	106.04	225,983	212,620	106.29
1840 .....	587,275	418,624	140.29	302,094	285,181	105.93	216,021	202,603	106.62
1843 .....	604,472	444,573	135.97	310,655	293,817	105.73	228,655	215,018	105.90
1846 .....	626,424	473,149	132.40	321,159	305,265	105.21	243,893	229,256	106.38
1849 .....	691,562	498,862	138.63	355,495	336,067	105.78	256,344	242,518	105.70



(C.)—Table of LEGITIMATE and ILLEGITIMATE Births in the Ten principal Prussian Towns for Five Years

Towns.	1816.			1825.			1834.			1843.			1849.		
	Births.			Births.			Births.			Births.			Births.		
	Legi- timate.	Illegi- timate.	Number of Illegitimate for every 100 of Legitimate Births.	Legi- timate.	Illegi- timate.	Number of Illegitimate for every 100 of Legitimate Births.	Legi- timate.	Illegi- timate.	Number of Illegitimate for every 100 of Legitimate Births.	Legi- timate.	Illegi- timate.	Number of Illegitimate for every 100 of Legitimate Births.	Legi- timate.	Illegi- timate.	Number of Illegitimate for every 100 of Legitimate Births.
1. Berlin .....	5,492	1,337	24·35	6,871	1,172	17·06	7,772	1,674	21·56	9,808	1,826	18·62	11,638	2,122	18·24
2. Breslau .....	1,833	339	18·05	2,687	464	17·27	2,454	584	23·80	2,723	664	24·38	3,286	874	26·60
3. Cologne .....	1,657	214	12·91	1,920	255	13·28	2,312	291	12·59	2,965	335	11·30	3,607	357	9·82
4. Königsberg...	2,213	399	18·03	2,042	395	19·34	1,710	399	23·33	1,799	523	29·07	2,162	614	28·40
5. Danzig .....	1,420	239	16·83	1,946	340	17·47	1,729	324	18·74	1,934	396	20·37	2,187	438	20·00
6. Magdeburg ..	1,068	54	5·06	1,217	126	10·35	1,788	233	13·03	2,174	232	10·67	2,440	283	11·60
7. Aix-la-Cha- pelle.....	1,106	104	9·40	1,258	84	6·69	1,500	90	6·00	1,763	90	5·10	1,754	85	4·85
8. Stettin.....	672	115	17·11	724	147	20·30	1,012	154	15·22	1,342	182	13·56	1,612	223	13·83
9. Posen .....	810	136	16·79	1,050	163	15·52	1,301	171	13·14	1,308	197	15·06	1,373	229	16·68
10. Potsdam .....	591	107	18·11	913	125	13·69	945	142	15·03	970	117	12·06	1,110	136	12·25

(D.)—Table showing RATE OF MORTALITY in the Ten principal Prussian Towns for Four Years.

TOWNS.	Deaths.				Average Number of Individuals among whom One Death occurred.			
	1825.	1840.	1843.	1849.	1825.	1840.	1843.	1849.
Berlin .....	6,486	9,315	8,884	14,111	33·96	33·45	39·75	30·04
Breslau .....	2,912	2,974	3,596	6,584	30·05	32·84	28·56	16·91
Cologne .....	1,643	2,184	2,329	4,113	35·95	34·73	35·82	23·05
Königsberg .....	1,936	2,015	1,844	2,459	34·67	35·16	39·23	30·60
Danzig .....	1,718	2,040	2,033	3,355	34·96	31·92	31·60	18·45
Magdeburg (and suburbs) .....	1,242	1,695	2,121	3,035	32·34	30·03	24·98	23·20
Aix-la-Chapelle ...	1,033	1,555	1,437	1,444	34·42	28·50	32·42	34·99
Stettin .....	681	1,113	1,302	2,201	44·60	34·45	31·93	21·45
Posen .....	1,052	1,179	1,625	1,968	25·21	30·75	24·74	22·34
Potsdam .....	710	995	891	978	42·64	36·71	42·14	40·76

(E.)—Table showing proportions of BIRTHS to POPULATION, and of ILLEGITIMATE to LEGITIMATE Births, arranged according to Provinces and Religious Communities, in the Year 1849.

PROVINCES.	The Births were to the Population as one to the following Numbers among				The Illegitimate Births were to the Legitimate as One to the following Numbers among			
	Protes- tants.	Catho- lics.	Men- nonites.	Jews.	Protes- tants.	Catho- lics.	Men- nonites.	Jews.
East Prussia .....	19·00	19·88	27·12	32·05	9·75	13·33	<div> <div>No Illegiti- mate Births</div> </div>	46·00
West Prussia .....	21·50	17·93	30·93	27·38	13·74	15·63		51·44
Posen .....	22·79	19·64	—	27·13	18·25	16·96	—	41·31
Brandenburg .....	25·98	36·62	—	34·91	9·70	11·04	—	50·45
Pomerania .....	23·45	28·08	—	28·37	11·30	10·29	—	47·57
Silesia .....	24·77	20·94	—	23·78	7·93	10·67	—	33·00
Saxony (Prussian) ..	21·81	24·89	—	37·99	9·58	16·60	—	64·00
Westphalia .....	25·39	27·50	—	34·07	20·67	25·25	—	87·00
Rhine .....	26·73	26·67	28·53	34·63	27·18	24·82	<div> <div>No Illegiti- mate Births</div> </div>	25·78
Average number in the whole kingdom ....	23·88	23·03	30·01	28·81	10·78	16·35	57·88	40·09

Among the Mennonites and among the Jews, the proportion of illegitimate births is uniformly smaller than among other classes.

(F.)—TABLE of DEATHS in the Year 1849, arranged according to Age and Sex.

	Deaths.			Among 100 Deaths were		
	Males.	Females.	Total.	Males.	Females.	Total.
Still born.....	15,234	11,405	26,639	3·05	2·29	5·34
Under 1 Year .....	61,795	51,167	112,962	12·39	10·25	22·64
Between 1 and 5....	38,743	36,961	75,704	7·77	7·41	15·18
„ 5 „ 10....	13,850	13,542	27,392	2·78	2·71	5·49
„ 10 „ 14....	4,944	4,907	9,851	0·99	0·98	1·97
„ 14 „ 20....	6,109	6,018	12,127	1·22	1·21	2·43
„ 20 „ 30....	16,750	15,026	31,776	3·36	3·01	6·37
„ 30 „ 40....	16,657	17,631	34,288	3·34	3·53	6·87
„ 40 „ 50....	18,645	16,604	35,249	3·74	3·33	7·07
„ 50 „ 60....	19,538	18,744	38,282	3·91	3·76	7·67
„ 60 „ 70....	21,132	24,185	45,317	4·24	4·85	9·09
„ 70 „ 80....	16,312	18,481	34,793	3·27	3·70	6·97
„ 80 „ 90....	5,974	6,974	12,948	1·20	1·40	2·60
Above 90 .....	661	873	1,534	0·13	0·18	0·31
Total .....	256,344	242,518	498,862	51·39	48·61	100·00

(G.)—Table showing for Four Years Average of Death in the Provinces of Prussia.

In the Provinces.	Deaths.				Number of Individuals among whom One Death occurred.			
	1825.	1840.	1843.	1849.	1825.	1840.	1843.	1849.
Prussia (proper) ....	57,089	70,789	69,867	83,600	33·54	32·63	34·44	29·75
Posen .....	29,651	36,834	43,325	61,524	35·07	33·50	29·78	21·98
Brandenburg .....	35,826	51,216	49,231	57,689	41·27	36·26	39·31	36·91
Pomerania .....	19,740	28,389	25,088	32,249	42·90	37·21	44·10	37·14
Silesia .....	71,764	83,229	103,368	105,490	32·23	34·35	28·52	29·02
Saxony (Prussian) .	32,693	41,147	46,528	50,938	41·65	39·79	36·19	34·97
Westphalia .....	27,536	36,967	36,924	35,533	43·02	37·42	38·50	41·23
Rhine .....	53,055	70,053	70,242	71,839	39·91	37·00	38·15	39·13
In the whole Kingdom .... }	327,354	418,624	444,573	498,862	37·44	35·66	34·80	32·74



(H.)—Table of DEATHS arranged according to Governmental Divisions, Town and Country, and Religious Denomination, in the Year 1849.

GOVERNMENTAL DIVISION.	In Towns.		In the Country.		Total.		Protestants.		Catholics.		Mennonites.		Jews.	
	Number of Deaths.	Average Number of Persons among whom One Death occurred.	Number of Deaths.	Average Number of Persons among whom One Death occurred.	Number of Deaths.	Average Number of Persons among whom One Death occurred.	Number of Deaths.	Average Number of Persons among whom One Death occurred.	Number of Deaths.	Average Number of Persons among whom One Death occurred.	Number of Deaths.	Average Number of Persons among whom One Death occurred.	Number of Deaths.	Average Number of Persons among whom One Death occurred.
Königsberg ...	7,402	28·94	18,285	34·69	25,687	32·99	20,442	32·81	5,158	33·11	5	67·20	82	68·69
Gumbinnen ...	1,751	39·24	14,429	37·79	16,180	37·95	15,999	38·19	146	71·12	17	44·06	18	105·50
Danzig ...	5,794	19·57	10,893	26·74	16,687	24·25	8,568	24·36	7,701	23·59	246	35·47	172	32·36
Marienwerder ..	5,032	25·26	20,014	24·68	25,046	24·80	11,120	27·07	13,485	22·21	109	28·97	332	52·44
Posen .....	11,493	21·95	24,973	25·83	36,466	24·61	8,696	23·07	25,977	23·13	—	—	1,793	29·27
Bromberg .....	7,281	14·78	17,777	19·52	25,058	18·14	8,253	21·67	15,942	15·77	—	—	863	28·31
Potsdam .....	22,214	32·22	13,320	41·52	35,534	35·74	34,673	35·56	556	40·42	—	—	305	44·83
Frankfort .....	7,372	34·30	14,783	41·08	22,155	38·82	21,807	38·70	246	41·28	—	—	102	60·24
Stettin .....	6,524	27·42	10,398	37·18	16,832	33·39	16,682	33·18	89	41·84	—	—	61	79·44
Cöslin .....	2,884	32·08	7,318	48·65	10,202	43·96	9,923	40·04	216	31·56	—	—	63	72·76
Stralsund .....	1,835	36·04	3,380	35·78	5,215	35·87	5,204	35·80	8	69·00	—	—	3	72·00
Breslau .....	13,940	20·50	30,287	29·35	44,227	26·56	25,965	26·90	17,913	25·91	—	—	349	34·55
Oppeln .....	5,614	26·08	28,205	29·05	33,819	28·56	2,932	32·87	30,487	27·98	—	—	400	41·65
Liegnitz .....	6,341	29·12	21,103	34·89	27,444	33·56	22,570	34·31	4,812	29·71	—	—	62	58·35
Magdeburg ...	8,719	30·59	11,609	36·53	20,328	34·01	19,851	34·07	424	28·80	—	—	53	53·45
Merseburg .....	8,803	29·66	12,576	38·29	21,379	34·74	21,316	34·62	63	64·21	—	—	....	....
Erfurt .....	3,344	35·75	5,887	38·68	9,231	37·62	6,264	39·48	2,947	33·42	—	—	20	72·85
Münster .....	2,320	38·40	7,319	45·49	9,639	43·77	838	47·21	8,757	43·26	—	—	44	74·20
Minden .....	2,379	38·12	9,560	38·96	11,939	38·80	5,204	51·97	6,648	28·10	—	—	87	67·75
Arnsberg .....	4,076	37·89	9,879	43·05	13,955	41·54	7,646	42·19	6,231	40·33	—	—	78	74·79
Cologne .....	5,328	26·70	9,345	37·99	14,673	33·90	1,795	39·56	12,784	32·89	1	20·00	93	63·08
Düsseldorf .....	10,343	36·69	12,235	43·12	22,578	40·18	8,981	39·26	13,467	40·54	15	64·47	115	66·59
Coblentz .....	2,861	35·38	9,828	40·88	12,689	39·64	3,709	43·03	8,805	37·88	5	47·00	170	49·85
Treves .....	2,166	25·91	9,433	46·23	11,599	42·43	1,435	48·18	10,079	41·47	—	—	85	58·71
Aix-la-Chapelle	3,133	33·40	7,167	42·82	10,300	39·95	262	51·24	10,006	39·52	—	—	32	83·91
Total .....	158,949	28·76	339,913	34·46	498,862	32·74	290,135	34·35	202,947	30·18	398	36·96	5,382	40·69

GOVERNMENTAL DIVISION.	Boys.	Girls.	Total.	Among these were Illegitimate.			Average Number of Individuals among whom One Birth occurred.	Average Number of Male Births for every 100 of Female Births.	Average Number of Illegitimate for every 100 of Legitimate Births.	Proportion of Males to Females among Legitimate Births. Number of Males for every 100 of Females.	Proportion of Males to Females among Illegitimate Births. Number of Males for every 100 of Females.
				Boys.	Girls.	Total.					
1. Königsberg .....	22,456	21,039	43,495	2,071	2,013	4,084	19.49	106.73	10.36	107.14	102.88
2. Gumbinnen .....	16,963	15,871	32,834	1,419	1,368	2,787	18.70	106.88	9.03	107.18	103.73
3. Danzig .....	10,292	9,566	19,858	860	726	1,586	20.38	107.59	8.68	106.70	118.46
4. Marienwerder .....	16,632	15,282	31,914	862	799	1,661	19.46	108.83	5.49	108.89	107.88
5. Posen .....	21,703	20,321	42,024	1,173	1,087	2,260	21.35	106.80	5.68	106.74	107.91
6. Bromberg .....	11,680	11,079	22,759	591	596	1,187	19.98	105.42	5.80	105.78	99.16
7. Potsdam (includ- ing Berlin)....	24,372	22,821	47,193	2,353	2,248	4,601	26.89	106.80	10.80	107.03	104.67
8. Frankfurt .....	17,504	16,686	34,190	1,519	1,434	2,953	25.16	104.90	9.45	104.80	105.92
9. Stettin .....	12,321	11,567	23,888	949	824	1,773	23.53	106.52	8.00	105.85	115.17
10. Cöslin .....	10,096	9,615	19,711	708	671	1,379	22.75	105.00	7.52	104.96	105.51
11. Stralsund .....	3,736	3,578	7,314	416	392	808	25.58	104.42	12.42	104.21	106.12
12. Breslau .....	25,950	24,538	50,488	2,875	2,729	5,604	23.26	105.76	12.49	105.80	105.35
13. Oppeln .....	24,654	23,725	48,379	1,650	1,524	3,174	19.97	103.92	7.02	103.89	108.27
14. Liegnitz .....	18,371	17,219	35,590	2,202	2,081	4,283	25.88	106.69	13.65	106.81	105.81
15. Magdeburg .....	14,153	13,377	27,530	1,143	1,140	2,283	25.11	105.80	9.04	106.32	100.26
16. Merseburg .....	15,650	14,840	30,490	1,606	1,548	3,154	24.36	105.46	11.54	105.66	103.75
17. Erfurt .....	7,085	6,643	13,728	592	569	1,161	25.44	106.65	9.24	106.90	104.04
18. Münster .....	6,929	6,638	13,567	236	212	448	30.36	104.38	3.41	104.15	111.32
19. Minden .....	9,901	9,512	19,413	489	443	932	23.86	104.01	5.04	103.78	110.38
20. Arnberg .....	11,256	10,838	22,094	449	458	907	26.24	103.86	4.28	104.11	98.04
21. Cologne .....	10,025	9,501	19,526	506	488	994	24.96	105.52	5.31	105.61	103.70
22. Düsseldorf .....	17,460	16,831	34,291	569	632	1,201	26.45	103.74	3.63	104.27	90.32
23. Coblenz .....	9,684	9,067	18,751	312	304	616	26.82	106.80	3.40	106.95	102.63
24. Treves .....	9,203	8,814	18,017	354	369	723	27.32	104.41	4.18	104.78	95.93
25. Aix-la-Chapelle....	7,419	7,099	14,518	236	216	452	28.35	104.51	3.21	104.36	109.26
Total .....	355,495	336,067	691,562	26,140	24,871	51,011	23.62	105.78	7.96	105.83	105.10



RECOMMENDATIONS of the COUNCIL of the STATISTICAL SOCIETY as regards the CENSUS of 1861.

A MINUTE in the following form was adopted by the Council in April last, and a copy forwarded to the Home Office.

“ At a Meeting of the *Council of the Statistical Society* (founded 1834), held at the Rooms of the Society, 12, St. James’s Square, on Thursday, the 12th April, 1860, SIR JOHN P. BOILEAU, BART., F.R.S., *Vice-President, in the Chair*, The Council considered in detail the report of a Sub-Committee of its own body, to whom was referred, in December last, the subject of the *approaching Census of 1861*, and proceeding on the basis furnished by the labours of that Sub-Committee, adopted the following *Recommendations*, with a view to their being submitted as early as practicable to the notice of the Secretary of State for the Home Department.

“ The Recommendations of the Council are as follows, viz.:—

“ 1. It does not appear to the Council that it will be desirable to suggest to the Government any arrangements of detail differing from those which were observed generally with great success in the Census of 1851.

“ 2. They consider it to be desirable, on many grounds, that the Census of 1861 should be taken at the same time of the year as the last Census.

“ 3. In 1851 two collateral branches of inquiry were prosecuted by means of the Census machinery, but not under compulsory provisions of the Census Act. These collateral branches of inquiry related to—

(1.) The provision existing for Religious Worship, and the attendance thereon; and

(2.) To the means existing for Education, and the attendance at Schools and places of Instruction.

The Council are strongly of opinion that both these collateral subjects should in 1861 be inquired into in a manner similar to that pursued in 1851.

“ 4. The Council recommend that a distinct inquiry should be inserted in each Census Schedule, asking the Religious Persuasion of the persons included in each Schedule, but leaving it *optional* with parties to answer the inquiry.

“ 5. It appears to the Council that the machinery of the next Census (*i. e.* of 1861) may be employed with great advantage in the collection for the first time of information throughout the country



as regards the Income of *Charitable* and *Beneficent* Societies and Institutions, such as exist in a variety of forms in nearly every parish and in connection with every place of worship. The Council would suggest for consideration the basis of classification of *Beneficent Institutions* adopted by this Society in the inquiry attempted by it in 1855-6 as regards the Metropolis. The inquiry now suggested would be collateral to the Census, and would probably have to be confined chiefly to the Object and Income of the Charity or Fund in each case.

“ 6. It also appears to the Council, that in the Census of 1861 an effort should be made to institute a Decennial Return of certain kinds of Agricultural Statistics. They would suggest that such Return should be confined to a statement of the quantity of land under different kinds of Crop in the preceding year (1860), and to a statement of the Number of Horses, Cattle, Sheep, and Pigs at the time of the Census.

“ 7. The Council recommend that as far as practicable the Census Schedules be framed with a view to collecting some particulars of the *Character*, as well as the *Number* of the Dwellings of the population.

“ 8. In the return of the Ages of the Population in Great Britain, the Council would be glad to see a distinction of each age below *five* years, so as to admit of more accurate investigations of the important questions relating to the mortality of infants.

“ 9. Finally, the Council strongly recommend that the Censuses of Great Britain and Ireland should be taken at the same time—that they should include, as far as possible, the same heads and branches of inquiry—and that the results should be set forth as far as possible according to the same principles and details of arrangement.”

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*On the STATISTICS of RAILWAY ENTERPRISE and TRAFFIC in GERMANY. By WILHELM LAZARUS, Hamburg.*

The Paper by Mr. Samuel Brown on the Financial Prospects of British Railways (*Journal*, June, 1859), has led Mr. Wilhelm of Lazarus, Hamburg, to prepare and forward to Mr. Brown the following memorandum.\*

THE paper you were so kind as to give me, about the financial prospects of British Railways, was of high interest to me, and I have attentively compared the data contained therein with the statistics of German Railways. I found more analogies than I had expected, and as I suppose it will be of some interest to you and to your friends occupied in similar examinations to make this comparison too, I will venture to lay before you some data about our German Railways, and to give you a few explanations. I do not pretend to give you a complete statistical picture of German Railways, my principle object being to make the points of comparison only, and, therefore, I shall follow the course of ideas developed in your paper.

Before I begin to do so, I must make a few remarks about German Railways in general. You know that the territory of

\* Since the MS. of the Paper arrived from Mr. Lazarus, he has addressed the following note to Mr. S. Brown, pointing out some needful corrections:—

“I hasten, meanwhile, to rectify to-day, an erratum in the table at page 7. My calculations about the receipts per passenger per mile, had been correctly made, as well as those per cwt. of goods per mile, but in copying, there has been placed one figure too far to the left hand. The correct figures are—

Prussian Railways.	1845.	1855.	1857.
	<i>d.</i>	<i>d.</i>	<i>d.</i>
Each Passenger per mile .....	0.89 .....	0.9 .....	0.86
Every cwt. of goods per mile .....	0.16 .....	0.073 .....	0.069

“I will add the data of my calculation so that you may easily, yourself, compare my results:—

1857. Number of Passengers forwarded by Prussian railways, 18,414,094.  
 Receipts, thalers, 10,777,365, equal to 1,616,604*l.* sterling.  
 Each passenger has travelled  $5\frac{1}{4}$  German miles, equal to 24.5 English miles.  
 Each passenger has paid 21.07 pence, *i.e.* 0.86 pence per mile.

“In calculating the Goods I have not reduced the German cwt. to English, as the difference is not considerable. A German cwt. is equal to 50 kilogrammes.

- Goods forwarded 245,481,215 cwt. (German).  
 Receipts, thalers, 20,662,312 equal to 3,099,216*l.*  
 Each cwt. of goods was carried 9.4 German miles, equal to 43.9 English miles.  
 Each cwt. of goods has paid 3.03 pence, *i.e.* 0.069 pence per mile.

Germany is composed of thirty-nine different governments, having different laws, different money, and different weights and measures. This diversity makes the general German statistics rather complicated and difficult, and I am sorry to say, they are made still more so by the circumstance that statistical data contained in the reports published in the different states of Germany, are not exhibited in the same points of view, from their having to satisfy very different laws and regulations of the government. Besides this, we must distinguish in Germany, three different kinds of Railways. You know that with us, the principle, that whatever can be done by private individuals, should be left to them, is not acknowledged so generally as is the case with you, and although this truth is rapidly gaining friends, but a few years ago it was considered best, that institutions of public importance should be established and managed by government.

Thus, in Germany, a very considerable part of the railways were constructed by government, and are still managed by government, the necessary funds were raised by taxes and loans, and the profits are consequently part of the revenues of the country. There are no shares, no dividends, and the report required to be published, is merely that demanded by the constitutional law of the country about the public money affairs. This first class of railways I will call Government Railways. The second class consists of Railways which have been constructed by shareholders, but the management of which is in the hands of government. These are principally such railways as were obliged to raise money on loans and debentures, and which did not succeed unless the government they belonged to, guaranteed the payment of interest for these loans. Naturally enough, the government required the utmost security for this guarantee, and considered the best way of obtaining it, was by taking the management of the whole concern into their own hands. I will call this class of Railways, Shareholders' Railways under government management. Finally, the third class, consists of Railways which have been constructed, and which are managed by shareholders, but that does not prevent the government of the country having even in these, a large interest, by being itself a shareholder, or by having reserved to itself a part of the profits. I will call this class Shareholders' Railways.

In speaking of German Railways, I mean all the Railways of the countries belonging to the German diet.

In the reduction of money, I have calculated  $6\frac{2}{3}$  Prussian thalers, equal to one pound sterling, and in the reduction of miles  $4\frac{2}{3}$  English miles, equal to one German mile.

There is a great similarity between the German and English Railways as to their unsatisfactory financial state. Although some of them realize great profits and pay large dividends, on an average they



do not pay well, and are liable to great fluctuations; but they pay better than in England.

	Miles.
The total length of lines opened at the end of 1857 was .....	6,708
"                    "                    authorized, but not opened.....	2,060
	<hr/>
Total .....	8,768

The Capital raised for the lines by Shares and Loans up to the end of 1857 was, in Prussia:—

		£
Government Railways .....	7 lines .....	9,726,133
Shareholders' Railways (government management) .....	10 ,, .....	9,495,855
Shareholders' Railways .....	20 ,, .....	24,859,110

In other German Countries:—

Government Railways.....	8 ,, .....	30,608,990
Shareholders' Railways .....	17 ,, .....	8,903,559

In Austria:—

All Railways .....	29,158,650
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Total .....

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112,752,297

The Capital raised for the lines in the course of construction was, at the end of 1858:—

Shareholders' Railways, new lines.....	7 lines .....	8,712,860
"                    "                    extensions      }	9 ,, .....	11,290,716
and branch lines .....		
Government Railways .....	4 ,, .....	not stated.

The Capital to be raised for Shareholders' Railways (government management) and Shareholders' Railways up to the end of 1858, (Austrian Railways excluded), was..... £63,262,100

Of which had been raised on original Shares .....	£33,375,000
On loans and debentures.....	22,800,000
	<hr/>
	56,175,000
	<hr/>
Leaving amount to be raised .....	7,087,100

Of the New Lines in the course of construction at the end of 1857 (2,060 miles), 95 miles had been opened in 1858, leaving 1,965 miles in the course of construction at the end of 1858. About the number of persons employed on the lines opened I cannot give you any data.

*German Railways.—Passenger and Goods' Traffic, 1834-57.*

Year.	Miles opened.	Passengers.	Passengers per mile.	Total Receipts from Passengers.	Goods.	Total Receipts from Goods.	Total Receipts, including Sundries.
	No.	No.	No.	£	cwt.	£	£
1834	79	2,379	30	150	234,262	9,900	10,500
'35	80	84,484	1,056	3,000	903,507	27,000	30,000
'36	115	513,612	4,467	9,000	1,275,694	37,500	48,000
'37	131	694,770	5,300	12,750	1,259,957	36,000	50,400
'38	188	1,219,599	6,487	34,395	1,416,052	41,400	78,555
'39	295	2,394,475	8,117	118,377	1,770,758	53,166	176,622
'40	392	3,370,391	8,402	182,520	3,112,697	89,913	283,917
1841	560	5,122,850	9,127	345,552	4,978,197	137,868	499,827
'42	793	7,046,640	8,886	438,258	8,048,904	203,835	658,821
'43	980	8,116,329	8,282	554,421	13,241,861	318,759	904,536
'44	1,214	10,402,817	8,375	713,331	16,934,641	388,248	1,135,179
'45	1,587	12,474,389	7,860	871,749	24,061,268	507,849	1,434,030
1846	2,100	17,268,876	8,223	1,241,811	37,346,818	820,836	2,133,642
'47	2,893	21,314,818	1,368	1,583,937	60,817,339	1,273,287	2,981,500
'48	3,519	22,645,617	6,435	1,734,556	59,686,813	1,382,787	3,170,451
'49	3,944	23,969,773	6,078	1,792,836	77,461,393	1,706,046	3,739,278
'50	4,387	26,352,860	6,007	2,144,364	106,803,878	2,127,336	4,508,823
1851	4,620	29,622,633	6,412	2,465,406	140,708,886	2,691,235	5,422,551
'52	4,839	32,301,911	6,675	2,857,254	197,235,074	3,848,466	6,936,810
'53	5,101	30,838,170	6,045	2,828,128	228,840,089	4,154,553	7,303,914
'54	5,323	31,915,712	5,996	3,016,405	276,412,520	5,111,443	8,540,218
'55	5,754	35,732,515	6,210	3,350,600	343,428,599	6,650,306	10,412,533
1856	6,529	42,101,200	6,463	4,015,200	420,934,600	6,914,100	11,604,115
'57	6,708	45,191,705	6,752	4,304,988	474,038,990	7,851,957	12,875,913

*German Railways, 1834-57.—Comparative Results at intervals of Four Years.*

YEAR.	Receipts from Passengers per Mile.	Goods per Mile.	Receipts from Goods per Mile.	Total Receipts per Mile.
	£	cwt.	£	£
1834 .....	2	2,965	125	133
1838 .....	183	7,532	220	418
1842 .....	553	10,150	257	831
1846 .....	591	17,784	390	1,016
1850 .....	466	24,345	485	1,028
1854 .....	567	51,927	763	1,604
1857 .....	642	70,668	1,170	1,919

The absolute number of Passengers has been constantly increasing, with the exception only of 1853, as you see from the foregoing

table, but the relative number, after having increased up to 1841, has since considerably diminished, whilst a greater length of railways has been opened. It has been ascertained that by far the greatest number of passengers go by train only small distances; where the Railways become more numerous they are constructed in localities where the population is less dense, whilst in the beginning those routes were chosen in which the population was most dense, and thus the ratio of passengers per mile, has diminished with the extension of railways, although the ratio of receipts has increased. The average number of miles which each passenger has travelled by rail, was in

1834.	1838.	1842.	1846.	1850.	1853.
$17\frac{3}{4}$	.... 8	$17\frac{1}{2}$	$19\frac{1}{4}$	$21\frac{3}{4}$	$24\frac{1}{2}$ Miles.

With you it is only about 13 to 14 miles, as I see by table E. of your paper, and thus, it is easily explained how it comes, that whilst the ratio of passengers per mile between England and Germany, stands as 100:44, the ratio of receipts per mile is as 100:54, although the fares are cheaper with us than with you.

The Goods' traffic has not only been constantly increasing, considered absolutely, but the ratio per mile has been constantly increasing, too, very rapidly, and on comparison between England and Germany, the receipts per mile are as 100:75.

The ratio of total receipts per mile between England and Germany, is as 100:71.

The total amount of Capital raised for the construction of 6,708 miles of Railways on 31st December, 1857, was 112,752,297*l.*, averaging 16,980*l.* per mile opened (on comparison between England and Germany, at the rate of 100:48). While you mention that the average cost of construction has recently much diminished with you, it is just the contrary with us; we began with constructing those Railways which promised the least difficulties, and seeing what benefits Railways bestow upon the country, we conquered, by degrees, all difficulties of the ground we had to cross, till at last we did not even hesitate to pass the Alps over the Semmering, as you know. But by this means the course of construction has constantly increased. It was only 3,760*l.* per mile, in 1834, 6,750*l.* per mile up to 1840, 9,500*l.* up to 1845, 13,220*l.* up to 1850, and 16,980*l.* for every mile opened up to 1857.

In 1857, on the railways in Prussia only, 18,414,094 passengers were carried, of which only one was killed and one injured, of persons employed in the Railways, killed 6, injured 44, from causes beyond their own control; 48 killed, 113 injured, by their own carelessness; strangers (this implies people neither connected with the line nor



passengers) killed 20, injured 11, by carelessness, and 13 killed by their own will and deed.

I see by your paper that you make a distinction between Loans and Preference share capital, with us the loans are effected by shares which are issued under special conditions, the whole property of the Railway serving as a guarantee for the punctual payment of interest. Besides, in many cases, government has guaranteed the interest too, naturally enough, not merely for a banker's commission: it has acquired for this guarantee special advantages, as for instance, one-third of all the profits realized exceeding 4 per cent. or so. With us, we call these shares (which I suppose must come very near your preference shares), "priority shares."

The amount of these Priority Shares was up to 1858, 22,800,000*l.*, paying about  $4\frac{1}{2}$  per cent. interest, on an average.

The total profits from all Railways in 1857, were 6,626,844*l.*, thus in fact offering the greatest desirable security for the priority shares considered on the average.

*German Railways.—Working Expenses, 1834-57.*

YEAR.	Miles Opened.	Total Amount of Working Expenses.	Working Expenses per Cent. of Total Receipts.	Working Expenses per Mile.
		£	Per cent.	£
1834 .....	79	—	—	—
1835 .....	80	22,500	75·0	281
1836 .....	115	30,000	62·5	261
1837 .....	131	33,000	65·5	252
1838 .....	188	54,150	68·9	288
1839 .....	295	124,210	73·3	421
1840 .....	392	163,346	57·5	416
1841 .....	560	296,100	59·2	530
1842 .....	793	379,632	57·6	480
1843 .....	980	462,051	51·8	471
1844 .....	1,214	576,525	50·8	475
1845 .....	1,587	751,307	52·9	475
1846 .....	2,100	1,123,912	52·7	535
1847 .....	2,893	1,605,822	53·9	555
1848 .....	3,519	1,848,210	58·3	525
1849 .....	3,944	2,012,420	53·8	510
1850 .....	4,387	2,303,970	51·1	525
1851 .....	4,620	2,522,910	48·4	546
1852 .....	4,839	3,630,250	52·2	794
1853 .....	5,101	3,828,250	52·4	750
1854 .....	5,323	4,315,600	50·5	811
1855 .....	5,754	5,002,650	48·	869
1856 .....	6,529	5,580,320	48·9	855
1857 .....	6,708	6,249,082	48·5	931

It is perfectly intelligible that with the increase of the traffic, the working expenses per mile, must rise, but the proportion of working expenses to the total receipts, has become, nevertheless, lower as the total receipts increased at a more rapid rate.

In 1851, 1,088 locomotives, 3,135 carriages for passengers, containing 138,930 seats, and 15,156 waggons for goods, &c., were employed on the German Railways, excluding Austria, and the locomotives ran 12,706,965 miles. In the same year the expenses were for

	£
General management not applying to the locomotion, nor to the line in particular .....	189,110
For expenses of locomotion, including all expenses for carrying on the passengers and goods .....	1,525,457
For maintenance of way .....	808,343
	<hr/> 2,522,910

In 1855, the number of locomotives was 2,395, Austria included.

In 1857, the number of miles run by the locomotives, was 30,849,793, Austria included, of which 5,879,524, belong to Austria. You see the number of miles run has more than doubled from 1851 to 1857.

The Prussian Railways examined separately, show—

DETAILS.	In 1845, 463 miles.	In 1855, 2,201 miles.	In 1857, 2,718 miles.
Cost of construction per mile .....	£10,256	£13,451	£14,058
Total receipts per mile .....	£971	£1,758	£1,986
Working expenses per mile of line .....	£520	£882	£901
Working expenses percentage of total receipts ....	53·6	50·3	45·4
Profit per mile .....	£451	£876	£1,085
Profit percentage of cost of construction .....	4·4	6·5	7·7
Every passenger has travelled on an average, <i>miles</i> ..	25·2	25·7	24·5
Every cwt. of goods conveyed on an average, „ ..	30 3	42·9	43·9
Receipts from every Passenger per mile ... <i>pence</i> ..	0·89	0·9	0·86
Receipts pr. (German) cwt. of Goods pr. mile „ ..	0·16	00·73	00·69
Locomotives for every mile of line .....	0·28	0·37	0·41
Carriages „ „ .....	1·08	0·67	0·73
Waggons „ „ .....	2·75	6·81	7·63
Working expenses per Traffic mile ..... <i>shillings</i> ..	3·7	3·6	—
Consumption of fuel per mile, wood, cubic ft. ....	4·14	0·08	0·08
„ „ „ coke, &c. ....	43·	38·	34·
Engines .....	875·	794·	(in 1854) —
Cost of furnishing with engines, every engine } at an average, without a tender .....	£2,016	£1,854	—

These figures prove most eloquently what considerable progress has been constantly made.

The percentage of passengers of the different classes on German Railways, is known to me, only for the years 1851 and 1854.

	In 1851.	In 1854.
It was, first class.....	1·19 .....	1·6
„ second class .....	15·85 .....	20·5
„ third and fourth class .....	82·96 .....	77·9
	<hr/>	<hr/>
	100· .....	100·

You are no doubt aware, that it is not the custom to travel first class in Germany, second class carriages being exceedingly comfortable.

The costs of construction may be subdivided on an average.

	Per cent.
Cost of the ground.....	9·5
„ of constructing the line.....	63·5
„ of stations and buildings .....	10·5
„ of locomotives .....	14·
Preliminary expenses.....	2·5
	<hr/>
	100·

Most of the German Railways create a reserved fund, but I can only give you the data of this fund for the Prussian Railways; it was

1844.	1848.	1850.	1855.	1857.
£	£	£	£	£
43,747 ....	109,350 ....	288,795 ....	584,943 ....	582,488

In 1857 the expenses were—

	£
For general management .....	357,271
„ locomotion and traffic .....	3,988,501
„ maintenance of way .....	1,903,310
	<hr/>
	6,249,082

The profits realized by the different Railways, are very dissimilar from each other, and so, consequently, are the dividends paid. On an average the capital invested in German Railways realized.

In	Pr. ct.	In	Pr. ct.	In	Pr. ct.
1834.....	....	1842.....	3·88	1850.....	3·67
„ 1835.....	2·36	„ 1843.....	4·71	„ 1851.....	4·45
„ 1836.....	3·64	„ 1844.....	4·17	„ 1852.....	4·87
„ 1837.....	2·69	„ 1845.....	3·64	„ 1853.....	4·74
„ 1838.....	1·95	„ 1846.....	3·50	„ 1854.....	4·25
„ 1839.....	2·27	„ 1847.....	3·39	„ 1855.....	5·11
„ 1840.....	3·60	„ 1848.....	2·67	„ 1856.....	6·07
„ 1841.....	3·65	„ 1849.....	3·12	„ 1857.....	7·05



I add a table of the dividends including interest paid by the different "Shareholders Railways," from 1842 up to 1856.

RAILWAY.	First dividend paid or com- pletely opened.	Dividend paid, 1856.	Average dividend.
		P. ct., p. ann.	Pr. ct.
Austrian Government Railway .....	1855	14·9	17½
Magdeburg-Leipsic .....	42	23	14½
Kaiser Ferdinand Nordbahn .....	42	12½	9¾
Cosel-Oderberg .....	47	—	6
Nurnberg-Furth .....	42	15	14 <sup>9</sup> / <sub>10</sub>
Leipsig-Dresden .....	42	19	7¼
Magdeburg-Halberstadt .....	44	12½	8
Oberschlesische .....	43	11 <sup>1</sup> / <sub>6</sub>	7¼
Berlin-Anhalt .....	42	9	6½
Berlin-Stettin .....	44	9 <sup>5</sup> / <sub>12</sub>	7
Pfalzische-Ludwigbahn .....	50	9	6
Breslau-Schweidnitz Freiburg .....	45	9	5½
Köln-Minden .....	48	8 <sup>2</sup> / <sub>3</sub>	6¼
Budweis Linz-Gmunden .....	42	—	5
Taunusbahn .....	42	7 <sup>3</sup> / <sub>5</sub>	6¼
Bonn-Köln .....	44	—	5½
Rhine Railway .....	43	6¼	3¾
Thuringia Railway .....	48	6¾	4
Altona-Kiel .....	45	7¼	6
Dusseldorf-Elberfeld .....	42	5	3¾
Berlin-Potsdam-Magdeburg .....	49	—	3
Berlin-Hamburg .....	47	5½	4
Hamburg-Bergedorf .....	42	—	3¾
Rendsburg-Neumunster .....	47	—	6
Mainz-Ludwigshafen .....	53	5	4¼
Stargard-Posen .....	49	3½	3½
Aachen-Dusseldorf .....	53	3½	3½
Ruhrort Crefeld Gladbach .....	52	3½	3½
Bergisch Markisch Railway .....	49	—	1¼
Cottbus Schwielochser .....	46	2½	3
Cothen-Bernburg .....	46	2½	2½
Lübeck Büchen .....	52	3	2¼
Gluckstadt-Elmshorn .....	45	—	1
Mecklenburgisch Railway .....	51	1½	1½
Neisse Brieg .....	45	3½	1¼
Friedrich Wilhelm, North line .....	49	—	½
Magdeburg-Wittenberge .....	53	½	¾
Prinz Wilhelmsbahn .....	48	—	⅛
Aachen Maastricht .....	54	—	¾
Lobau Zittau .....	48	—	—
Niederschles: branch line .....	47	1 <sup>1</sup> / <sub>6</sub>	¾

MISCELLANEA.

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I.—*The Finances of the City of Paris, 1858-9.*

THE following abstract is obtained from the *Times* newspaper.

“ The Report lately presented by the Prefect of the Seine to the Municipal Council on the Budgets of the city of Paris for 1859 and 1860, contains some points of interest. It states, for example, that so prosperous were the city finances in 1859, that, after largely providing not only for the ordinary expenses, but for the exceptional wants of hospitals, religious edifices, and schools, for the repairs of bridges and quays, the extension of paving, the making of plantations, the salubrity of houses, and the distribution and carrying away of water, a sum of 528,128*l.*, in addition to that which came from the loan which the city had been authorized to raise, was devoted to the purchase of houses and buildings and the execution of works for the improvement of streets and thoroughfares ; and that that sum would have been still larger if one of 270,023*l.* had not been taken to increase the reserve of the Municipal Treasury, which had been lessened by a sum of 400,000*l.* having been appropriated to the Caisee des Travaux de Paris. ‘ These figures,’ says the report, ‘ prove that the Municipal Council of Paris, in entering in May, 1858, into an agreement with the Government to execute in the space of ten years, works and improvements estimated to cost 7,200,000*l.*, in return for a subvention of only 2,000,000*l.*, did not miscalculate the resources of which the city could dispose for that purpose.’ And, in addition to all this, not only says the report, were the sums required for the payment of the interest, premiums, and lots of the debt duly provided, but one of 229,736*l.* was set apart towards the payment of the debt.

“ The report then goes on to explain what it calls ‘ the secret of these results,’ and that secret is that within the last seven years—that is, since the establishment of the empire—the ordinary receipts of the city have increased in a much greater proportion than the ordinary expenses. Thus, in 1852, the year in which the empire was established, and in which the great works in Paris were commenced, the ordinary receipts were only 2,103,065*l.*, and in 1859 they were 3,173,117*l.*—increase, 1,070,051*l.*; whereas the ordinary expenses, which in 1852 were 1,397,577*l.*, were in 1859 1,966,527*l.*—an increase of only 568,949*l.* ‘ That,’ says the report, ‘ is all the mystery of the pretended marvels accomplished in Paris during the last seven years by the municipal administration. What had to be done to obtain this result was very simple, namely, resolution and perseverance ; on the one hand, in obtaining from established duties all that they could be made to yield, and taking advantage of all circumstances that presented themselves for increasing



the revenue; and, on the other hand, restraining as much as possible the continual tendency of the different branches of the municipal services to increase their expenses.' It is to the augmentation of the population, to the influx of provincial and foreign visitors, and to the general increase of public and private prosperity that the report ascribes principally the augmentation of the municipal revenues; but it admits that the increase of certain octroi duties, the establishment of taxes on wholesale dealings in the markets, the increased rent for market stalls, the increase of the tax on cabs and omnibuses, and a number of other things, as also a more equitable division of charges common to the Government and the municipality, have likewise contributed to that augmentation.

"The report then notices various items in the revenue which are new or have increased. Among them are these:—the imposition of a tax of 2 cents per cubic metre on Gas consumed, which last year yielded a revenue of 39,200*l.*; the tax on dogs, which, though reducing the number of dogs from 45,617 in 1856 to about 33,000 in 1859, yielded more in the latter year than 12,000*l.*; the tax on cabs and on omnibuses (these vehicles are 3,997 in number), which in 1852 only amounted to 18,845*l.*, produced in 1859, 81,469*l.* The report announces that the municipality has not yet been able to obtain the imposition of a tax on all carriages, horses, and vehicles employed in Paris, and remarks, as a singularity, that in this capital it is 'the wealthiest classes which manifest the strongest repugnance to new taxes.' The report justifies the proposed tax on the ground that it is not right that private carriages, and particularly the large waggons and vans used in commerce, should have the privilege of using the paving and macadam of streets gratuitously, when omnibuses, which are chiefly destined for people of modest incomes, pay.

"The report next refers to the charge for admission to the Bourse—a matter which has excited a good deal of discussion. This charge, it says, was established in 1856, on the recommendation of the Chamber of Commerce, as a means of preventing the overcrowding of that place, which had become intolerable, and of keeping away petty capitalists, who were tempted to speculate, and by so doing often lost all they had. Another reason for establishing the charge, was that the municipality did not think it right that an edifice belonging to it, and which served as a market for securities and merchandise, should be free from all charge when all the other markets are made to pay heavily. Some persons, says the report, complain bitterly of the charge for admission as injurious to commercial transactions; but it was those persons who profited by the silly hopes and the sudden panics of the petty speculators. But though, the report says, the Bourse is less frequented than it used to be, it is still well attended, and on some days is overcrowded. The number of persons it can conveniently accommodate is about 4,000; but on certain days as many as 4,200 and even 4,500 have entered, and rarely, even in the summer, has the number been less than 3,500. Moreover, the number of payments for admission steadily progresses,—in 1857 the total amount obtained was 40,406*l.*, in 1858 it rose to 41,099*l.*, and in 1859 was about 42,400*l.*

"The report afterwards proceeds to give details respecting the budget of 1860, which, on account of the aggrandizement of Paris, differs considerably from that of 1859. Among other things it shows that all the communes annexed, except Passy, have debts amounting to 238,516*l.*, which will have to be paid between 1860 and 1874; but it shows also that they have assets amounting to 235,737*l.* It calculates that 56,000*l.* will be required to exempt poor families from what is called the personal and furniture tax, and that in the suburbs annexed the number of families so exempted will exceed 28,000, consisting of 90,000 persons. It says, that the number of octroi entrances into Paris, which has heretofore been fifty-seven, will henceforth be sixty-six; and that the duties of the octroi officers will be greatly increased on account of the entries being much more numerous, of the fortifications which they will have to watch being upwards of 20 miles (33 kilometres) in extent, of the necessity of watching the points at which the railways pass through the fortifications, and the goods stations of railways; and, lastly, of exercising surveillance over what are called the *entrepôts à domicile*. These increased duties will render necessary the augmentation of the ordinary octroi staff.



from 1,259 persons to 1,862; of from 138 to 200 of the men charged to accompany goods which pass through the city in transit, or do not pay at the gates; and the creation of ninety new officers specially charged with the surveillance of the domicile entrepôts. The expense of the octroi will, says the report, be increased from 117,029*l.* to 171,038*l.*

“The report notices that, in expectation of the aggrandizement of Paris, many persons residing outside the octroi wall have laid in, for their own private use, stocks of wood, wine, &c., in order to avoid paying the octroi duties of Paris, which are higher than those of their communes; and it expresses a doubt that they have made a good bargain, inasmuch as they have paid for those articles, and especially wine, more than they will be worth this year. It does not propose to interfere with them, but it says a great number of other persons in connivance with speculators have clandestinely collected as many as 300,000 or 400,000 casks of wine, with the intention of depriving the city of Paris of the octroi duty thereon, which it calculates at 600,000*l.* or 720,000*l.*; but it says, that in virtue of regulations adopted by the Council of State, they will be made to pay the duties. On the subject of the cemeteries, the report says that Paris, when enlarged, will comprise three large cemeteries—those of the East, or Père-Lachaise; the West, or Montmartre; the South, or Montparnasse; and ten others less important, those of Auteuil, Passy, the Batignolles, La Chapelle, La Villette, Belleville, Charonne, Bercy, Vaugirard, and Crenelle. The commune of Montmartre besides makes over to the city the proprietorship of a new cemetery situated beyond the fortifications. Of all these cemeteries, the three large ones of old Paris and those of Auteuil, Passy, Batignolles, Montmartre, La Villette, and Vaugirard will alone be required. The others will be closed,—that is to say, will not receive any new tombs; but they will remain accessible to families, and the existing tombs will be respected.

“The report concludes by proposing to set aside a reserve fund of 200,000*l.* for the expenses which the enlargement of Paris will necessitate, namely, the formation of a magnificent Promenade by the union, on the demolition of the octroi wall, of what are now the outer Boulevards and the Chemin de Ronde; the construction of new *mairies*, &c., but the report says that that sum will fall far short of what will eventually be needed.

“The officials of the Octroi have taken possession of the posts established in the new inclosure of Paris, now, like ancient Thebes, become the City of the Hundred Gates. Under Louis XV Paris had already considerably increased, and some neighbouring villages were added to it, among others that of the Roule, which was made a suburb of the city. In 1784, under Louis XVI, the Farmers-General received permission to surround the capital with a wall, which is nearly the same as that now existing, but which will soon disappear. At that period the barrier gates were almost all of wood, and the offices small wooden houses, placed on wheels for the convenience of locomotion. The barriers were 60 in number, classed in three divisions—north, south, and east. The new inclosure of Paris, with its 100 gates, its deep ditches, and its green slopes, will better respond to the grandeur of the city than the wall by which it has been hitherto surrounded. An immense number of Parisians did not lose the chance of profiting by the change in the barriers. During the afternoon and evening of the day before the alteration was effected, they flocked outside the old barriers and made purchases of every kind, and for some hours before midnight all the barriers were crowded with vehicles and foot passengers waiting for the moment when they might pass through without being stopped. When midnight struck the barrier gates were thrown open, the octroi men retired, and the whole body entered Paris and proceeded to their respective destinations, happy at having thus effected some saving, though at the cost of considerable trouble.

“In consequence of the extension of Paris, the administration of the Mont de Piété has established three additional offices, in which pledges are received without additional percentage being laid on by intermediate agents. One is at the Batignolles, the second in the Rue de Buffon, near the Jardin des Plantes, and the third at Vaugirard.”

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II.—*Condition of the Poorer Classes at Rome, 1860.*

THE following interesting account of the present condition of the Poorer Classes in Rome at the present time, is extracted from the foreign correspondence of the *Leader and Saturday Analyst*, of 14th April, 1860, a newspaper every way entitled to be placed in the first rank of our periodical literature.

“The Peasant’s Costumes, like the scarlet cloaks and smock-frocks of Old England, are dying out fast. On the steps in the ‘Piazza di Spagna,’ and in the artists’ quarter above, you see some twenty or thirty models in the braided boddices and the folded linen head-dresses, standing about for hire. The braid, it is true, is torn; the snow-white linen dirt-besmeared; and the brigand looks feeble and inoffensive, while the hoary patriarch plays at pitch and toss. But still they are the same figures that we know so well, the traditional Roman peasantry of the ‘Grecian’ and the ‘Old Adelphi.’ Alas! they are the last of the Romans. In other parts of the city, the peasant dresses are few and far between. The costume has become so uncommon as to be now a fashionable dress for Roman ladies at Carnival time and other state festivities. On Sundays and ‘Festas’ in the mountains, you still can find real peasants with real dresses; but even here Manchester stuffs and cottons are making their way fast, and every year the original costume becomes rarer and rarer. A grey serge jacket, coarse nondescript-coloured cloth trousers, and a brown felt hat, all more or less dusty and ragged, compose the ordinary dress of the Roman working man.

“Provisions are dear here. Bread of the coarsest and mouldiest quality costs, according to the Government tariff, from two to three baiocchi, that is *from a penny to three halfpence per pound*. Meat is about a third dearer than in London; and *clothing*, even of the poorest sort, is very high in price. On the other hand, *lodgings* of the class used by the poor are cheap enough. There is no outlay for firing, as even in the coldest weather, with the thermometer below freezing point, even well-to-do Romans never think of lighting a fire; and then, in this climate, the actual quantity of victuals required by the labourer is far smaller than in our northern countries. From all these causes we feel no doubt that the cost of living for the poor is comparatively small, though of course the *rate of Wages* is low in proportion. For ordinary Unskilled Labour, the wages at this season of the year are about three pauls or three pauls and a half a-day; in summer about five pauls; and during the height of the vintage as much as six or seven pauls, though this is only for a very few weeks. We should suppose, therefore, that from 1s. 6d. to 1s. 9d. a-day, taking the paul at 5d., were the Average Wages of a good workman at Rome. From these wages, however, there are several deductions. In the first place, the immense number of ‘festas’ tells heavily on the workman’s receipts. On the more important feast-days, all work is strictly forbidden by the Government, and either employer or labourer who was detected in an infraction of the law, would be subject to heavy fines. On the minor festivals, however, about the observance of which the Church is not so strict, labour is equally out of the question. The people have got so used to holiday-keeping, that nothing but absolute necessity can induce them to work save on working days. All over Italy this feeling is too common. We were informed by a large manufacturer in Florence, that, having a great number of orders on hand, and knowing great distress to exist among his workmen’s families, he offered double wages to any one who came to work on a recent ‘festa,’ but only one or two in a hundred responded to his offer. In Rome, where every moral influence is exerted in favour of idleness against industry, the observance of holydays is practised most religiously. Then, too, the higher rate of wages paid in summer is counterbalanced by the extra risk to which the labourer is exposed. The ravages created by the malaria fevers amongst the ill-fed, ill-clothed, and ill-cared-for labourers, are really fearful. The subject, however, of the malaria, and its influence on the population, is too wide a



one to be treated of in this letter. An allusion to the fact is sufficient for the present.

“The greatest curse of all to the working man at Rome, greater than the ‘festas’ or the malaria, is the *Middle-Man System*, which is almost universal. If you require any work done, from stone-carving to digging, you seldom or never deal with the actual workman. If you are a farmer, and want your harvest got in, you contract months before with an agent, who agrees to supply you with harvest-men in certain numbers and at a certain price, out of which price the agent pockets as large a percentage as he can. If you are a sculptor, and wish a block of marble chiselled in the rough, the man you contract with to hew the block at certain day wages, brings a boy to do the work at half the above amount, or less. If you wish to make a purchase, or effect a sale, you have a whole series of commissions and brokerages to pay before you come into contact with your principal; and so on, in every branch of trade or business. If you inquire why this system is not broken through, why the employer does not deal directly with his workman, you are told that the custom of the country is against any other method; that amongst the workmen themselves there is so much terrorism and intimidation, that any single employer or labourer who contracted for work directly, would run a risk of annoyance or actual injury—of having, for example, his block of marble split, or his tools destroyed, or a knife stuck into him as he went home at night; and, more than all, that, without the supervision of the actual overseer, your workmen would cheat you right and left, no matter what wages you paid. After all, it is better to be cheated by one man than by a hundred; and, in fact, being at Rome, you must do as the Romans do.

“It may possibly have been observed that, in the foregoing paragraph, we have spoken of the ‘workman at Rome,’ not of the ‘Roman workman.’ The difference, though slight, is an all-important one. The workmen at Rome are not Romans, for the Romans proper never work. The Campagna is tilled in winter by groups of peasants, who come from the Marches in long straggling files, headed by the ‘Pifferari’—pipers. In summer time the harvest is reaped and the vintage gathered in by labourers whose homes are in the Abruzzi mountains. In many ways these mountaineers bear a strong resemblance to the swarms of Irish labourers who come over to England for the harvest. They are frugal, good-humoured, and, for Italians, hard-working and industrious. A very small proportion, too, of the working men in Rome itself are Romans. Certain trades, as that of the cooks, for instance, are confined to the inhabitants of particular districts. The masons, carpenters, carvers, and other mechanical trades are filled by men who do not belong to the city, and are called and considered foreigners. Of course, the rule is not without exceptions, and you will find sometimes genuine Romans amongst the common workmen, but amongst the skilled workmen never. There is a very large Poor Population in Rome, and, in some form or other, these poor must work for their living; but their rule is to do as little work as possible. There still exists amongst the Romans a sort of debased Imperial pride; a belief that a Roman is, *per se*, superior to all other Italians. For manual labour, or labour under others, he has a contempt and dislike. All the semi-independent trades, like those of cab drivers, street pedlars, petty shopkeepers, &c., are eagerly sought after and monopolised by Romans. Indeed, the extent to which Small Trades are carried on by persons without capital and miserably in debt, is, we understand, one of the greatest evils in the social system which prevails here. If the Romans also, like the unjust steward, are too proud to dig, unlike that worthy, to beg they are ‘not’ ashamed. Begging is a recognised and a respected profession; and if other trades fail, there is always this left. Besides, the poor at Rome are not afraid of actual starvation. Any man who goes to confession, is not a ‘scontento,’ and can get a good word from his priest, is sure of food at the convent doors for himself and his family. We are not saying there is no good in this custom; in fact, it is the one good thing we have come across in connection with the system of government; but still, on an indolent and demoralised population like that of Rome, the benefit of this sort of charity, which destroys the last and strongest motive for exertion, is



by no means unmixed. The cardinal principle, indeed, of Papal rule is to teach its subjects to rely on charity in place of industry.

"In order to relieve, in some measure, the fearful distress that exists among the poor of Rome, the Government has taken some hundreds (nearly a thousand we should guess) of persons into their employment and set them to work on excavating the Forum. The sight of these men working, or rather pretending to work, is reckoned one of the stock jokes of the season. Six men are regularly employed in conveying a wheelbarrow filled with two spadefuls of soil. There is one man to each handle, two in front to pull when the road rises, and one on each side to keep the barrow steady. You will see any day long files of such barrows so escorted, creeping at a snail's pace, to and from the Forum. It is hardly necessary to say that no progress whatever has been made in the excavations, or, in truth, is likely to be made. Yet all these workmen are able-bodied fellows, who receive two pauls a-day for doing nothing. Much less injury would be inflicted on their self-respect by giving them the money outright than in return for this mockery of labour.

"The amusements of the people are much what might be expected from their occupations. To do them justice, they drink but little, and even at the road side 'Osterias' on a Sunday you rarely see a Roman drunk. On the other hand, they are a nation of gamblers. Their chief amusement, not to say their chief occupation, is gambling. In the middle of the day, at street corners, and in sunny spots, you see groups of working men playing at pitch halfpenny, or gesticulating wildly over the mysterious game of 'moro.' Skittles and stone-throwing are the only popular amusements which require bodily exertion; and both of these, as played here, are as much chance as skill. The lottery, too, of which we have spoken before, is the delight of every true Roman."

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### III.—*The American Census of 1860.*

THE *New York Herald* gives the following prospective estimate of the United States Census to be taken in 1860:—

"The Government at Washington is now engaged in preparing for the Eighth Census since the organization of the Republic, and it has already issued preliminary instructions for carrying out that great work to the census marshals throughout the country. We publish to-day the programme to be adopted in order to ensure correct and speedy returns. The Census officials are to commence operations on the 1st of June, and they are required to complete the work in every State and territory within the earliest practicable period. Ten years have elapsed since the last national Census was taken, and in that period the country has attained a marvellous degree of prosperity, highly developed resources, a widely-extended territory, and a largely-increased population. Two States—Minnesota and Oregon—have been added to the Union since then, and three new territories—Kansas, Nebraska, and Washington—have been organized under territorial legislatures. The total population of the States and Territories, according to the census of 1850, was 23,191,876.

"We have prepared an Estimated return of the present population, in anticipation of the Census of 1860, and the increase within the last decade presents an astonishing example of the growth of the United States. A State Census has been taken since 1850 in twelve States and six Territories, at different periods—in 1855, '56, '58 and '59. Taking the increase for the periods between the national Census of 1850 and the time when the State Censuses were taken as our data, we have made a general average of the present increase for the entire decade—dividing the States into classes according to their facilities for rapid growth. Thus we find that, while the *Old Free States* have increased at the average of  $33\frac{1}{2}$  per cent. for the past ten years, the *New Free States* have increased at the rate of from 60 to 200 per cent., the *Old Slave States* at the rate of 50 per cent., and the *New Slave*

State of Texas at the rate of 160 per cent. and the *Territories* at the rate of 150 per cent. By this mode we may arrive very closely at the aggregate population of the entire country in 1860.

“Basing a calculation upon the general average increase per cent., we are enabled to present the following tables of the probable increase of the entire Union for the whole decade, together with the total population in 1860:—

*Prospective Estimate of Census Results of 1860.*

	Population in 1850.	Estd. Avge. Increase in Ten Years	Estd. Popn. in 1860.
<b>(A.)—OLD FREE STATES.</b>			
		Per cent.	
Connecticut.....	370,792	33½	504,688
Massachusetts.....	994,514	„	1,321,097
Maine.....	583,169	„	793,758
New York.....	3,097,394	„	4,043,914
New Hampshire.....	317,976	„	432,718
Rhode Island.....	147,545	„	200,825
Pennsylvania.....	2,311,786	„	3,146,597
Vermont.....	314,120	„	427,202
New Jersey.....	489,555	„	664,415
Ohio.....	1,980,329	„	2,500,000
Indiana.....	988,416	„	1,345,344
<i>Total</i> .....	11,595,596		15,380,558
<b>(B.)—OLD SLAVE STATES.</b>			
Alabama.....	771,623	50	1,044,039
District of Columbia.....	51,687	„	77,530
Delaware.....	91,532	„	137,298
Florida.....	87,445	„	131,167
Georgia.....	906,185	„	1,359,277
Louisiana.....	517,762	„	700,000
Kentucky.....	982,405	„	1,473,607
Maryland.....	583,034	„	874,551
Mississippi.....	606,526	„	909,789
Missouri.....	682,044	„	1,023,066
North Carolina.....	869,039	„	1,303,558
South Carolina.....	668,507	„	1,002,760
Tennessee.....	1,002,717	„	1,504,075
Virginia.....	1,421,661	„	2,132,491
Arkansas.....	209,897	„	314,845
<i>Total</i> .....	9,452,064		13,988,053
<b>(C.)—NEW SLAVE STATE.</b>			
Texas.....	212,592	160	538,198
<b>(D.)—NEW FREE STATES.</b>			
California.....	92,597	200	1,018,589
Iowa.....	192,214	„	214,354
<i>Total</i> .....	284,811		1,232,943



*Prospective Estimate of Census Results of 1860—Contd.*

	Population in 1850.	Estd. Avge. Increase in Ten Years.	Estd. Popn. in 1860.
(D.)— <i>Contd.</i> —NEW FREE STATES.		Per cent.	
Illinois.....	851,470	60	1,362,352
Michigan.....	397,654	„	636,246
Minnesota.....	6,077	„	9,723*
Wisconsin.....	305,391	„	488,625
Oregon.....	13,294	„	21,390
<i>Total</i> .....	1,573,886		2,518,336
(E.)—NEW TERRITORIES.			
New Mexico.....	61,547	150	153,867
Washington.....	—	„	5,830
Utah.....	11,380	„	28,385
Kansas.....	—	„	17,600†
Nebraska.....	—	„	17,145
Arizona.....	—	„	11,500
<i>Total</i> .....	72,927		234,327
Total population in 1850 ....	—		23,191,876
Estimated population in 1860	—		33,892,415

\* The population of *Minnesota* is undoubtedly ten times greater, but we are compelled to state the figures thus in order that the general average may be adhered to.

† *Kansas*, the 17,600 is according to general average of increase per cent. in all the territories. Official canvas, just received, makes it 69,950.

“ While these estimates do not give the exact population of each respective State in each class (as is manifest by the estimates for *Kansas* and *Minnesota*), inasmuch as some have increased in a greater and some in a lesser ratio than the general average of percentage which we have taken for the entire class, yet they will show almost accurately the aggregate population of the entire country in 1860. Several estimates have been made by statisticians, but none of them have exceeded 32,000,000 as the present population; but here we have a population in round numbers of 34,000,000, and, in all probability, it may be even more than that.

“ Thus we shall soon exceed the population of either *France* or *England*, exclusive of their colonies; the only nation in *Europe* which can compete with us will be *Russia*, and we can command a greater power than *Russia*, because every quarter of this Union is knit together by a chain of railroads and telegraphs, by a free press, and a unity of language, religion, and a common civilization. So that while the power of the Russian empire is diffused over a vast extent of widely-sundered territory, our power is concentrated, like that of one great city. On the night of the approaching Presidential election we shall be in possession of the vote from every part of the country, and the next morning it will be announced in our columns. Unity of action is as complete throughout the entire States and territories of this Union—with all their varieties of climate, soil, productions, and races—as it was in the great city of *Athens*, or any other ancient city, in the tide of its glory. A kindred ambition and a common destiny bind us together with links



that nothing but a mad fanaticism can rend asunder. And thus the nation, now only in its infancy, will go on doubling itself within every hundred years, until it becomes more populous than all Europe, or China.

“ But there is an issue now before the people which, if it be not rightly determined, will put a termination to all this growth and prosperity, and, so far from another decade leaving this great country a marvel of power and extent, it may find her disunited and powerless—the wreck of what was once a youthful giant—with her promises unfulfilled, her destiny unaccomplished—the pity, and not the pride of the world.”

IV.—City of Sydney, New South Wales—Births, Deaths, three years,  
1857-9.

THE following paragraphs are from the official report of the Registrar of the city of Sydney in New South Wales :—

“ The numbers of *Births* and *Deaths* registered during the last three years being the only complete years comprised under the Registration Act, are given in the annexed table :—

	Population.	Births.	Deaths.	Births over Deaths.
1857.....	56,096	2,272	1,317	955
1858.....	58,238	2,266	1,647	619
1859.....	60,462	2,378	1,406	972

“ The proportional numbers of births and deaths per annum to each thousand persons of the living City population are shown in the table following :—

	Birth-rate.	Death-rate.
1857.....	40·50	23·48
1858.....	38·91	28·29
1859.....	39·33	23·25
	39·58	25·02

“ We have now the recorded data of three complete years touching the birth-rate and the death-rate within the city of Sydney. The result is, that the mean average of the whole year gives *Forty Births* and *Twenty-five Deaths* to every *thousand* of the city population. Compared with the urban mortality of the Mother country, severe as the mortality of Sydney has been represented to be, it is below the average of British towns, and far below that of some of those towns.

The death-rate of last year was only 23 per 1,000, being less than in either of the previous two.

“The death-rate of the past quarter was also lower than either of the two preceding springs—2 per 1,000 lower than 1857, and 7 per 1,000 lower than 1858. The most fruitful birth season in Sydney is the autumn; whilst our heaviest mortality occurs in the spring. In England, on the contrary, births are most plentiful in the warm seasons, and deaths in the cold. It is also seen, that while the warm season produces in Sydney a death-rate higher than that of British towns by nearly 4 per 1,000, our cool season is so favourable to health that our city death-rate is 5 per 1,000 below that of towns in England, and  $6\frac{1}{2}$  per 1,000 below that of the towns in Scotland. The effect of season upon the mortality of the respective ages may be judged by the next table, which gives the means of the last three years:—

	Under 5	5—20	20—60	60, &c.
Winter and Autumn ....	71·64	4·24	16·83	97·06
Spring and Summer ....	111·89	5·25	17·13	136·06

“With infants and the aged the mortality of the warm season is much higher than in the cool, the excess with either being about 40 per 1,000, or 4 per cent.”

#### V.—Germany—Emigration from, 1854-9.

THE following statement is given on the authority of the *Australian and New Zealand Gazette*, a very intelligent and useful weekly newspaper, published in London by Messrs. Olger and Street.

“From authentic statistical returns sent to us from Hamburg, it appears that the total number of German emigrants who left Europe from the three principal ports of emigration during the last six years, was as follows:—

	Bremen.	Hamburg.	Antwerp.	Total.
1854.....	75,424	50,819	25,843	152,086
1855.....	31,544	18,652	7,434	57,630
1856.....	36,511	26,203	10,052	72,766
1857.....	49,449	31,566	13,333	94,348
1858.....	23,127	19,799	4,080	47,006
1859.....	21,992	13,023	1,320	36,335
Total ....	238,047	160,062	62,062	460,171

“Thus has Germany, in a short space of years, lost half a million of its most useful and industrious inhabitants—for the wanting 40,000 to make up the round sum are more than counterbalanced by the German emigrants who embark at

Hamburg for Hull, and then, crossing the country to Liverpool, take a passage there for Canada and the United States. As the total population of Germany is computed to be about forty-five millions, it follows that the loss to the country is considerably more than *One per cent.*"

# **VI.—*Credit Mobilier Society at Paris.*—Condition and Operations in 1859.**

THE Paris Correspondent of the *Economist* newspaper of 5th May (1860), describes as follows the results of the Annual General Meeting of the Shareholders of the *Société Général de Credit Mobilier*, held at Paris on 30th April (1860). The French money is converted into sterling at 25 f. = £.

"The Credit Mobilier Shareholders held their annual meeting on the 30th April (1860), and, as usual, the report presented by the directors has excited great interest. The dividend declared was, as had been expected, only 12 f. 50 c. per share, in addition to the interest of 5 per cent. per share, making 25 f. paid at the beginning of the present year. The sum is certainly deplorably small, but in 1858 and 1857 there were no dividends at all. In 1856 the dividend (in addition to the 5 per cent. interest) was 90 f.; in 1855, 178 f. 70 c.; in 1854, 34 f.; and in 1853, 25 f. Thus, then, it will be seen the Credit Mobilier is subject to striking fluctuations of good and ill fortune.

"The report, after some general observations, and after stating that the Company subscribed 50,000,000 f. in the last loan of 500,000,000 f. raised by the Government, enters into somewhat elaborate detail respecting the co-operation of the Company in certain Spanish enterprises—the North of Spain and the Cordova to Seville Railways, and the Spanish Credit Mobilier. These affairs, it appears, have not obtained the support which had been hoped for from the Spanish people; but nevertheless, the intervention of the Company in them is justified on the grounds that they are good in themselves, and that the Company but follows the example set by English capitalists in supporting the Rouen Railway at a time at which the undertaking met with little favour in France. The Russian Railways, in which the Credit Mobilier is largely interested, are next noticed, and a favourable account is given of their situation and prospects; among other things, I see the Commercial Treaty between England and France is set down as likely to be advantageous to these lines by creating a larger demand for Russian raw materials. The Austrian, the Dauphiné (French), and the Southern (French) Railways; the Paris Omnibuses, the Paris Gas, and the Paris Real Property (Immobilière) Companies, in all which the Credit Mobilier is concerned, are successively referred to; nor is the Compagnie Maratime—one of its pet projects—which has hitherto been very unfortunate, forgotten; indeed, its situation is represented as quite *colour de rose*. The report then gives the following as the 'general situation of the Company on the 31st December last:—

## **LIABILITIES (*Passif*).**

	£
Capital .....	2,400,000
Accounts current .....	3,096,637
Bills to pay, and various creditors .....	237,876
Reserve .....	80,000
Balance of account of profit and loss .....	188,158
<b>Total .....</b>	<b>6,002,671</b>



ASSETS (*Actif*).

	£
Rentes and shares .....	3,011,262
Bonds .....	65,463
Bills to receive .....	321,862
'Continuations' (reports) .....	624,031
Advances to companies .....	673,575
House of the company and furniture .....	58,001
Cash in hand or at the bank, and dividends to receive .....	448,475
	<hr/>
	5,202,669
	<hr/>

"After comparing these items with those of preceding years, and after remarking, *en passant*, that the use of cheques which the Credit Mobilier inaugurated some time back, is on the increase, the report proceeds to give details respecting the account 'of profit and loss,' on which it justly remarks, 'the interest of the shareholders is concentrated.' It appears from what is said, that the transactions in *rente* and shares yielded a profit last year of 32,434*l.*; interest and commission one of 111,358*l.*; and the deposit of securities, &c., one of 1,800*l.* To these items, one of 6,160*l.* is added, as the balance of what is realisable of the 'accumulated profits of 1857 and 1858' (they were 376,947*l.*) after deducting the 'depreciation caused by the uncertainty of the situation in 1859, and the diminutions which prudence renders advisable on different accounts' (this evidently means that the said 'accumulated profits' are represented by securities which have greatly declined in value). A total profit for the year of 207,200*l.* is thus arrived at, and that sum is thus disposed of:—

	£
Expenses of management, &c.....	19,041
Interest of 5 per cent. on 25 f. per share, } paid in January last .....	120,000
10 per cent. to the directors.....	6,815
Dividend of 12 f. 50 c. per share.....	6,000
Balance to be carried over to next year .....	1,342
	<hr/>
Total .....	£153,198
	<hr/>

"The report concludes by expressing the conviction that the situation of affairs in general is about to improve, and that consequently that of the Credit Mobilier will improve with it: also by lamenting that the shares of the Company give rise to wild speculation, by repudiating all responsibility therein, and by declaring that there are 'few enterprises in which the element of labour, and that great foresight without which nothing is certain and durable, enter into so high a degree as they do in the Credit Mobilier.' Such is an analysis of the last report presented to the shareholders of this remarkable institution. Your intelligent readers will draw their own conclusions from it."

With reference to the preceding report, the *Times* of the 4th May (1860), contains the following comment:—

"According to the accounts submitted at the annual meeting of the Credit Mobilier Company at Paris, the balance of 360,000*l.*, which stood to the credit of the concern at the end of 1858, has dwindled to 60 000*l.* This result has

occasioned great remark, since it appears wholly inexplicable, the Company being supposed to have enjoyed during the past twelvemonth almost exclusive opportunities of connecting itself most profitably with all such projects as have received countenance from the Government. The understanding at the meeting, however, seemed to be that no questions were to be tolerated. Scarcely forty shareholders attended, and one or two who had the courage to solicit information, are reported to have been immediately put down. At any time the danger of resistance from intractable shareholders is small, since by the statutes of the Company those only can claim to be present who have held at least 200 shares for six months. As a means of silencing inquirers on the present occasion, the unworthy trick was resorted to of threatening that the Board of Directors would resign if any 'mistrust' were exhibited. After the payment of a dividend, the available balance of profit and loss will be reduced, it is stated, to 1,260*l*."

I may venture to refer to the statement relative to the Credit Mobilier made by me in Section (F), at Cheltenham, in 1856, and to remind those who heard that statement, of the close conformity of the actual results now announced to the results then predicted.—*ED. S. J.*

## VII.—*Local Taxation of England and Wales, Scotland, and Ireland in 1858-9.*

THE following Return "showing the Amount Annually Collected by Rates, Tolls, and Dues in England and Wales, Scotland and Ireland, so far as the same can be ascertained from existing Returns," is obtained from Parl. Paper 204/1860, just issued. The amounts marked (\*) have not been ascertained.

### (I.) ENGLAND AND WALES.

	£
Poor's rate (with which are collected County, Police, and Borough rates), 1858 .....	8,188,880
Church rate ( <i>average of seven years</i> ) .....	263,710
(Additional voluntary contributions, 269,550 <i>l</i> .)	
Highway rate (including paving, &c., under Local Acts), 1857	1,949,837
Metropolis Local Management Act:	
Rates levied by general board .....	159,886
* Rates levied by the parishes and district boards.....	—
* Local Government Act and Boards of Health (in addition to Highways) .....	—
* Sewers rates, under 3 and 4 Will. 4, c. 22 .....	—
* Local Drainage Acts, Bedford Level, Norfolk, Lincoln, &c.	—
* Lighting, &c., Act 3 and 4 Will. 4, c. 90 .....	—
Turnpike tolls, 1856.....	1,051,050
* Bridge tolls .....	—
* Ferries .....	—
* Market tolls and dues .....	—
* Port Dues .....	—
England and Wales ( <i>so far as ascertained</i> ), Total.....	11,613,363

## (II.) SCOTLAND.

	£
By parochial boards (from returns obtained from the Board of Supervision):	
Under Poor Law Act .....	£622,100
,, Burial Grounds Act.....	1,819
,, Lands Valuation Act .....	2,704
,, Registration Act, births, marriages, } and deaths.....	10,240
,, Nuisances Removal Act .....	1,462
	<hr/> 638,325
By Counties and Burghs (from returns obtained from the Lord Advocate):	
Rogue money .....	£16,122
Police force, lighting and cleansing .....	214,925
Prison assessments .....	32,241
Road assessments and paving rates .....	100,314
Lands Valuation Act .....	7,661
Registration of births, &c.....	6,545
Registration of voters.....	3,141
Nuisances Removal Act .....	726
Annuity tax (clergy) .....	15,017
Militia stores .....	12,305
General municipal expenses .....	28,291
	<hr/> 437,288
Turnpike tolls (from Home Office returns).....	209,867
* Statute labour roads .....	—
	<hr/>
Scotland ( <i>so far as ascertained</i> ), Total .....	1,285,480

## (III.) IRELAND.

	£
(From returns obtained from the Lord Lieutenant):	
Grand Jury cess .....	991,083
Poor rate .....	526,877
Rates under Towns Improvement Act .....	10,813
,, Municipal Corporation Act, 3 and 4 Vict., } c. 108 .....	2,409
,, Lighting, Watching, &c., Act, 9 Geo. 4, c. 82	4,215
,, Local Acts .....	194,286
	<hr/>
Ireland, Total.....	1,729,683

## SUMMARY.

	£
England and Wales ( <i>so far as ascertained</i> ) .....	11,613,363
Scotland .....	1,285,480
Ireland .....	1,729,683
United Kingdom, light dues, 1859 .....	273,570
	<hr/>
Total, <i>so far as the same has been ascertained</i> .....	14,902,096



VIII.—*Strikes of Building Trades in New York in 1859.*

THE following statement is from the *Building News* (London), of the 3rd June, 1859:—

“We lately gave an account of the promising state of building operations in New York, and the appearance of prosperity after long depression; but we regret to say that the prospect is now far from satisfactory, for the agitators and Unionists in New York, who have done so much injury to the trade of the city by combinations and strikes, have set to work to throw the whole operations into confusion, and to produce a general strike. There are a set of men in the Atlantic Metropolis who spend their time chiefly in the drinking-houses, and in pot-house oratory, living at the expense of their clubs, and doing as little work as they can. In fact, these pests of the working-classes are not properly working men; some of them are keepers of drinking-places, and some lawyers’ clerks, and practising on the number of strangers in New York, German and other foreigners, they coerce the American and English employers and masters in various ways. The moment a trade in New York becomes considerable, the system of agitation is begun, good workmen are not allowed to do as they like, but rates of pay are set up to foster inferior hands, and the hulking vagabonds live at the expense of the general body. The consequence is, that the employers move to other places, where they and their workmen can be free from intimidation and intrigue, and New York loses many branches of business, or is subjected to severe competition, for it is the nature of Americans to seek independence of action; they will pay high wages to good workmen, but they will not have loafers quartered upon them.

“At the last advices the following trades had been induced to strike:—*Carpenters*, their present pay is 6s. 8d. to 7s. a-day, and they ask 7s. 6d. to 8s. *Bricklayers*, their scale is 6s. 8d. a-day; they demand 7s. *Tin Roofers*, who are employed in setting up the favourite tin roofs, and who earn 4s. to 7s. a-day, are asking 8s. *Painters*, whose wages are 7s. a-day, ask 8s. *Tunnellers or Navvies*, Irish or German, earn 3s. 6d. a-day; they ask 4s. *Miners* are paid 4s. a-day, and ask 4s. 6d. to 5s. *Shipjoiners* are receiving 8s. a-day, and demand 10s. *Carvers* are getting 6s. to 8s. a-day; they want a quarter more. *Gilders’* pay is 6s. a-day, and they require 8s. *Varnishers and Polishers*, or French Polishers, require an advance of 25 per cent. on present rates. *Labourers* are paid 4s. a-day, and require 5s. *Pianoforte-makers* are getting 40s. to 64s. a-week, and demand from 10 to 25 per cent. increase. *Carpet Weavers* are paid 3s. to 3s. 3d. per day, and require 10 to 25 per cent. advance. *Cap-makers* are asking 12 to 25 per cent. additional. *Sailors*, under guidance of the crimps, want 20 per cent. increase of wages. *Waiters* require for their advance 25 per cent. on previous rates.

“Several of these had struck, or threatened to strike, and some had succeeded in obtaining an advance, while the agitators were bringing free trades under unions.

“It is of course to be observed that the rates are mostly for rather short days, and exclusive of overtime, but it will scarcely fail to be remarked that on the whole, the old rates of pay in New York are far from being so high as working men suppose to be the case, and many classes of labourers are very poorly paid. This arises from two causes, first, from the abundant supply of inferior labour, German and Irish; and secondly, because the market is overstocked with inferior labour and with men of common trades. Labourers and navvies are supplied by the emigrants we have mentioned, and the Germans can furnish, in abundance, carpenters and bricklayers. The emigrants, too, crowd into New York and stop there.”

IX.—*Exchange Operations—New York and London.*

A RECENT number of the *New York Economist* has the following remarks upon the Export of Gold to England:—

“The activity of the Gold shipment at the present moment, makes the cost of the transaction a matter of some interest, and it may be illustrated by an actual transmission of *Eagles* to London for coinage, as follows:—

Cost of 10,000 Eagles at \$10 .....	Dols.	100,000	—
Insurance on \$100,000 at $2\frac{1}{2}$ per cent.....	\$505	—	
Policy .....	1	25	
Kegs, packing, and other charges.....	4	25	
		510	50
Cost in New York.....		100,510	50
Proceeds of two kegs, containing 10,000 Eagles, melted } into 30 bars, weighing 447 lbs. 7 oz. 16 dwt., reported } worse $1\frac{5}{8}$ gr., being equal to 439 lb. 4 oz. 12 dwt. 3 grs. } standard, or 5 oz. 12 dwt. 3 grs. at 77s. 9d. .... }	£	s.	d.
	20,497	5	1
Allowed by melters for gold adhered to crucibles .....	2	18	3
	20,500	3	4

*Charges at Liverpool.*

Freight $\frac{3}{8}$ per cent. \$375 at 4·80 .....	£78	2	6
Landing charges .....	1	10	—

*Charges at London.*

Carriage and Insurance to London, at 3s. } per 100l. on 20,500l. .... }	30	15	—
Postage and car hire .....	—	8	—
Cartage to and from melters.....	1	—	—
Melting .....	11	4	—
Assaying .....	7	10	6
	130	10	—
	20,369	13	4
Add interest until maturity of bills, say 50 days at 37s....	101	15	3
	20,471	8	7
Less commission on bills $\frac{1}{2}$ per cent. on 20,352l. 15s. 7d.	101	15	3
Cash in London.....	20,369	13	4

“Which amount drawn at sixty days’ sight, to produce the above cost of 100,510 dols. 50 c., makes the exchange 111 11·100 per cent., or nearly  $111\frac{3}{8}$  per cent. This was the result to the general shipper, but the large houses enjoy advantages which enable them to supply the market with good bills at rates which leave a loss to outsiders. There are also modifications to the above return. When bars are remitted at  $\frac{1}{4}$  to  $\frac{3}{8}$  dis., the result is better, and when the eagles are sold at a price of 76s. 2d., which we think was the late quotation, a slightly different result is arrived at.

“The English bank at times when the shipments became too active, has been known to reject the eagles, which involved their melting and a loss to the shipper who predicated his movement on a sale of the eagles. When commissions and insurance are not paid the shipper has a great advantage over other houses who pay those items.”



X.—*Turkey.*—*State of Currency—Amount of Debt, &c., in May, 1860.*

THE following interesting statement is from the correspondent of the *Times*, dated at Constantinople, 27th April, 1860:—

“The prospect of the establishment of a *National Bank of Turkey* becomes more and more remote. Doubts of the success of the undertaking, under the auspices of those now engaged in it, have long been entertained here; and the fact that, owing to some misunderstanding between themselves and the Concessionaries or Directors in London, all the members of the local board have sent in their resignations, cannot but add to the distrust. It is said, though I much doubt the accuracy of the report, that the Ottoman Bank is likely to co-operate with the present holders of the concession in carrying out the project. There are those, on the other hand, who maintain that some six or eight Greek and Jewish bankers, who almost entirely monopolize the loans raised in this place by the Turkish Government, and who have contrived to get the whip hand over so many of the ministers, are about to take the matter into their own special charge. These bankers have naturally looked with disfavour on a scheme which, by placing the Government in a stronger financial position, would tend to diminish the enormous profits they now derive from its necessities. At the same time they cannot but feel that some such institution must one day, and in all probability ere long, be established; and they may deem it their best policy, now that an opportunity offers, to step in, and, by taking the whole matter upon themselves, effectually guard against the consequences they have feared. It need scarcely be said, that in the interests of the country, the indefinite postponement of all the advantages proposed would be preferable to such an occurrence as this. The six or eight firms alluded to are creditors of the Government to an enormous amount, and the rate at which their claims increase by the usurious interest they extort, is almost beyond belief. Unless some stringent means be taken by the Government, and that speedily, to regain its independence of these gentlemen, I can see nothing but utter ruin in store for the empire. The process by which the fabric of Ottoman rule is allowed to be undermined by these skilful assailants, if less calculated to alarm, will, perhaps for that very reason, prove more fatal than any scheme of foreign aggression. With states, as with individuals, whose expenditure is not apt to be regulated by the amount of their income, persons ever ready to lend money at from 30 to 40 per cent. are dangerous associates. They are doubly dangerous when the desire to effect the ruin of those whom they accommodate is only second to that of profiting by the extravagance it is their policy to encourage.

“That your readers may judge whether or not this estimate of the dangers which threaten the Turkish Government is an exaggerated one, I will, before concluding my letter, lay before them a specimen of the operations to which I refer. That transaction, although not conducted by one of the orthodox clique, is the latest of its kind which has come to my knowledge, and may be taken as a fair sample. In the meantime, there are one or two other matters which claim attention.

“The bank scheme will, it appears to me, come to nothing. Whether the Government will be able to forfeit the caution money of the concessionaires is another question. Until the kaimes are all withdrawn, the latter have the best of the argument, as the withdrawal of the paper money by the Government was made a condition precedent to the commencement of the operations of the bank. The time first fixed for the extinction of the paper currency has gone by; nor do I think ministers will find themselves in a position to complete the operation so soon as they now promise. Nevertheless, the present year will probably not end without seeing this reform accomplished.

“The next difficulty to be dealt with is the *beshtlik* currency. This currency takes its name from the beshlik, or five piastre piece, which forms its unit. There is reason to believe that about 450,000,000 piastres of this money have issued from the imperial mint. In consequence, however, of the difference between its intrinsic



and nominal or current value, there can be no doubt that Birmingham and other places have added largely to the stock in circulation. The different issues of this money from the Turkish mint have varied in their alloy; but on an average the value of the metal is about 54 or 55 per cent. below the nominal value of the money. The *English sovereign* is now worth about 117, and the Turkish lira or gold medjidie 105 piastres beshlik.

“With a view to prevent a continuance of the evils arising from the constant fluctuation of the *exchange* in this money throughout the empire, the Government has entered into an arrangement with certain individuals, who thereby engage to keep the exchange at 110 piastres to the pound sterling, and 100 piastres to the Turkish lira for ten years. The manner in which the contractors are to effect this is the following:—They undertake to give in Constantinople, to all comers, good bills on London and the chief capitals of the continent against beshliks, at the price stipulated in their contract. In consideration of this, Government is to pay them 8,000,000 piastres annually during the ten years. The contractors, moreover, agree to withdraw every year of that period 40,000,000 piastres, Government paying them on each of such withdrawals 20,000,000 piastres, a sum slightly exceeding the difference between the intrinsic and nominal value of the amount so withdrawn. This contract was not to have come into operation until after the extinction of the paper money, but the official paper of Monday last stated that arrangements had been made for giving effect to its conditions on and after the 1st of May (old style). I need not point out in detail the enormous risk run by the contractors, and the consequent unsoundness of such an operation. A similar scheme was tried some years since with the kaimes, by an association known as the Alléon Bank, and signally failed. The gentlemen who have now undertaken a like transaction, in the hope of the beshliks reaching a price which would make their agreement remunerative, have certainly some advantages which did not exist in the former case. It will probably be found, notwithstanding, that they will throw up their contract, and leave Government in the lurch, if they have reason to repent of their bargain.

“The following statement, in round numbers, of the *debts of the Turkish Government*, is as accurate as may be, allowance being made for the difficulty of procuring authentic information on such a subject in this country:—

	Piastres.	£
<i>Loan negotiated in London in 1854, 4 per cent. } guaranteed.....</i>	—	3,000,000
<i>Ditto, 1855, 6 per cent. ....</i>	—	5,000,000
<i>„ 1858, „ ..... </i>	—	5,000,000
<i>Current debts due by the ministers of finance, war, } navy, and artillery.....</i>	620,000,000	5,700,000
<i>Several months' arrears of pay to military and civil } services .....</i>	230,000,000	2,100,000
<i>Séhims redeemable next September.....</i>	80,000,000	730,000
<i>Hazné Tahvilis (Exchequer-bonds) payable next } January .....</i>	250,000,000	2,300,000
<i>Debts of the civil list, now acknowledged by } Government .....</i>	1,150,000,000	10,500,000
<i>Consolidés issued last year, bearing 6 per cent. } interest, and 2 per cent. amortissement .....</i>	250,000,000	2,300,000
<i>Amount to be paid by Government in the course of } ten years, to persons who have contracted to keep } beshliks at a fixed rate of exchange.....</i>	280,000,000	2,500,000
<i>Miscellaneous, old séhims, unliquidated claims, &amp;c., say</i>	425,000,000	3,870,000
		<hr/> 43,000,000 <hr/>

“ Of the *Revenue* it is yet more difficult to speak with certainty. I have, however, reason to believe 10,000,000*l.* to be about the sum that finds its way into the imperial treasury. The resources of the Government have been steadily increasing during the last few years, and a better system of collecting the revenue, honestly carried out, might add 50 per cent. to the amount. A budget has long been promised, and will, I really believe, be published in two or three months’ time.

“ As to *Expenditure*, I will not venture on an opinion. It is difficult to say what the requirements of the state amount to; it is impossible to form even a notion of the sum the Sultan and his harem may spend over and above the very large allowance for the civil list, or what portion of such excessive expenditure his Imperial Majesty may force the Vizier of the day to defray out of the revenue.

“ And now, having stated thus much respecting the liabilities of the Ottoman Government, and its means of meeting them, I will proceed to fulfil my promise of giving a sample of the operations from which most serious embarrassment may be apprehended for the future.

“ Only the other day Government required for a specific purpose—for the purpose, in fact, of paying some money previously borrowed—the loan of a sum of money. 269,595*l.* is forthcoming on the following terms, which have been embodied in a formal contract, dated the 4th instant. The Loan is to be repaid by eight instalments, to be effected—the first at the end of July next, and a like amount at the end of each of the succeeding seven months. Notwithstanding this mode of liquidation, 8 per cent. interest for the time fixed by the contract for the extinction of the debt is to be paid on the whole amount. There is also a 2 per cent. commission. All accounts in this country are kept in *piastres*, consequently the sterling amount must needs be reduced into *piastres* at the outset. It is agreed between the Government and the lenders, that this shall be effected at the rate of 133 *piastres* to the pound sterling, 123 *piastres* being the real exchange of the day. It is further stipulated that the amount of *piastres* thus obtained shall be repaid by the Government in sterling money at the rate of 110 *piastres* to the pound; in other words, that from every pound advanced the lenders shall derive a profit of 23 *piastres* over and above the interest and commission. That there may be no mistake upon this point, the contract itself gives the result in pounds sterling of the calculations at the above rates. 269,595*l.* is therein expressed as the amount borrowed, and 325,964*l.* as the principal sum to be repaid. Here, then, is a further addition of 20 per cent. to the price Government is to pay for the use of the money. This, with the interest and commission as stated above, amounts to 30 per cent. per annum. The money is not lent for a year. A calculation made with due regard to the paying off by instalments of portions of the principal, will give something like 40 per cent. per annum as the rate really paid for the loan.

“ Such transactions are of constant occurrence, owing, of course, to the amount and urgency of the claims on Government. A Foreign Loan has been talked of, and, seriously as such an event must depreciate Turkish securities, I see no alternative. Anything is better than such operations as I have described.

“ The announcement of a change of ministry has been expected here. Mehemët Ruschidi Pasha’s dismissal was most positively asserted to be a *fait accompli* some days back, but the assertion was at least premature. I am not aware of any particular cause for such a proceeding at the present moment, but it seems to be the fashion to dismiss a minister or two after the fêtes of the Bairam, a time at which the Sultan usually wants money.”

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ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN  
OF THE  
MARRIAGES IN ENGLAND AND WALES DURING THE FOURTH QUARTER  
(OCTOBER—DECEMBER), OF 1859, AND OF THE BIRTHS AND DEATHS  
DURING THE FIRST QUARTER (JANUARY—MARCH), OF 1860.

THIS Return comprises the BIRTHS and DEATHS registered by 2,197 Registrars in all the districts of England during the Winter Quarter that ended on March 31st, 1860; and the MARRIAGES in 12,402 churches or chapels, about 4,228 registered places of worship unconnected with the Established Church, and 631 Superintendent Registrars' offices, in the quarter that ended on December 31st, 1859.

The Marriages at the end of the last year exceeded the usual number.

The first Quarterly Return of the year 1860 presents nearly average results. The *birth-rate* is above the average of the ten preceding winter quarters. The *death-rate* is slightly above the winter average; but below the rates of the two previous winters. The Weather in the beginning of January was warm; but remained so cold and ungenial afterwards as to retard vegetation, and to swell the return of deaths. The prosperity of trade and the sanitary improvements of towns produced a countervailing effect.

MARRIAGES.—101,000 persons married in the last quarter of the year 1859. In the Christmas quarter of the year the marriages of England are invariably more numerous than in any other quarter of the year. Thus 21,148 more persons married in the Christmas quarter than married in the previous autumn quarter.

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, returned in the Years  
1854-60, and in the QUARTERS of those Years.

*Calendar YEARS, 1854-60 :—Numbers.*

Years .....	'60.	'59.	'58.	'57.	'56.	'55.	'54.
Marriages No.	—	167,900	156,070	159,097	159,337	152,113	159,727
<i>Births</i> ..... ,	—	689,558	655,481	663,071	657,453	635,043	634,405
<i>Deaths</i> ..... ,	—	441,249	449,656	419,815	390,506	425,703	437,905

QUARTERS of each Calendar Year 1854-60.

(I.) MARRIAGES :—*Numbers.*

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	—	35,429	29,918	33,321	33,427	29,186	33,234
June ..... ,	—	42,045	39,890	41,267	38,820	38,549	40,518
Septmbr. .... ,	—	39,926	38,599	38,669	39,089	37,308	38,182
Decmbr. .... ,	—	50,500	47,663	45,840	48,001	47,070	47,793



QUARTERS of each Calendar Year, 1854-60.

(II.) BIRTHS :—Numbers.

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	183,206	175,429	170,959	170,430	169,250	166,225	160,785
June ..... „	—	175,727	169,115	170,444	173,263	165,277	172,457
Septmbr. .... „	—	168,311	157,445	161,181	157,462	154,700	154,724
Decmbr. .... „	—	170,091	157,962	161,016	157,478	148,841	146,439

(III.) DEATHS :—Numbers.

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	122,642	121,682	125,819	108,665	103,014	134,542	111,843
June ..... „	—	105,778	107,142	100,046	100,099	106,493	102,586
Septmbr. .... „	—	104,339	98,142	100,528	91,155	87,646	113,843
Decmbr. .... „	—	109,450	118,553	110,576	96,238	97,022	109,633

The average marriage-rate of the season is 2·000 ; and the rate for the quarter was 2·020.

The marriages in the year 1859 were 167,900 ; so 335,800 persons married. The marriage-rate of the year was 1·700 ; the average annual rate being 1·692.

BIRTHS.—The births of 183,206 children were registered in the quarter that ended on March 31st last ; or 7,777 in excess of the numbers registered in the corresponding quarter of the previous year. The birth-rate of the quarter was 3·693 ; or 0·139 in excess of the average rate.

INCREASE OF POPULATION.—The Births registered in the 91 days of the quarter exceeded the Deaths by 60,564. So the natural recorded increase of the population of England and Wales was at the rate 666 daily ; the probable increase of the population of England and Wales was at the rate of 999 daily.

ENGLAND :—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1854-60, and the QUARTERS of those Years.*

Calendar YEARS, 1854-60 :—General Percentage Results.

YEARS .....	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
Estmtd. Popln. of England in thousands in middle of Year.....	—	—	19,745	19,523,	19,305,	19,045,	18,787,	18,619,
Persons Married Per ct.	—	1·692	1·700	1·598	1·648	1·674	1·620	1·716
Births .... „	—	3·404	3·492	3·357	3·435	3·452	3·380	3·407
Deaths .... „	—	2·218	2·235	2·303	2·175	2·050	2·266	2·352

## QUARTERS of each Calendar Year, 1854-60.

## (I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	—	1·416	1·462	1·248	1·408	1·416	1·266	1·456
June..... „	—	1·704	1·712	1·642	1·714	1·638	1·648	1·750
Septmbr. „	—	1·630	1·602	1·566	1·592	1·626	1·574	1·626
Decmbr. „	—	2·000	2·020	1·930	1·876	1·990	1·978	2·030

## (II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	3·693	3·554	3·621	3·567	3·600	3·585	3·603	3·520
June .... „	—	3·558	3·577	3·480	3·548	3·656	3·534	3·722
Septmbr. „	—	3·278	3·377	3·195	3·308	3·275	3·261	3·294
Decmbr. „	—	3·232	3·402	3·198	3·295	3·264	3·128	3·111

## (III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	2·472	2·460	2·512	2·625	2·295	2·182	2·916	2·449
June..... „	—	2·195	2·153	2·205	2·083	2·112	2·277	2·214
Septmbr. „	—	2·042	2·093	1·992	2·063	1·896	1·848	2·423
Decmbr. „	—	2·182	2·189	2·400	2·263	1·995	2·039	2·329

20,784 Emigrants, including 917 foreigners, sailed from the ports of the United Kingdom during the quarter; 5,954 were of English origin, and went to the United States and the Australian Colonies in nearly equal numbers; only nine went in this cold season direct to the North American Colonies.\*

PRICES, THE WEATHER, AND PAUPERISM.—The Births, Deaths, and Marriages of the population are influenced by the weather, the prices of food, and the activity of trade.

The average price of *Wheat* was 44s. 5d. a quarter, while in the corresponding quarters of the two previous years it was respectively 46s. 5d. and 40s. 8d. There has been little fluctuation in the price. *Beef* was sold on an average at 5½d. a pound by the carcase at Leadenhall and Newgate Markets; the average of the

\* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 4,609, while the birthplace of 4,694 was not distinguished; in the above statement a proportional number of these have been added to those returned as of English origin.

highest prices of the best beef having been  $6\frac{1}{2}d.$ , of the lowest prices  $3\frac{3}{4}d.$  The price of the inferior beef was  $1d.$  a pound lower than it was in the winter of the preceding year; so the price fell 21 per cent. The *superior Beef* only fell from  $6\frac{3}{4}d.$  to  $6\frac{1}{4}d.$  The average price of *Mutton* was  $5\frac{3}{4}d.$  a pound; the price of inferior mutton was  $4\frac{3}{4}d.$ , the superior mutton was  $6\frac{3}{4}d.$  a pound. The price of the inferior mutton was the same as it was last year; the price of the best mutton was a farthing lower. The *York Regent Potatoes* sold on an average at 130s. a ton at the Waterside Market, Southwark; so the price though lower than it was in the

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine  
Winter QUARTERS ended 31st March, 1860.

1	2	3	4		5	6	7		8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.		
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.				
						In-door.	Out-door.			
1858	£	s. d.	d. d. d.	d. d. d.	s. s. s.					
31 Mar.	96 $\frac{1}{8}$	46 5	4 $\frac{1}{4}$ —6 $\frac{1}{4}$ 5 $\frac{1}{4}$	4 $\frac{3}{4}$ —7 5 $\frac{7}{8}$	130—175 152	138,376	835,641	37·8		
30 June	97 $\frac{1}{8}$	44 1	4 $\frac{1}{4}$ —6 5 $\frac{1}{8}$	4 $\frac{1}{2}$ —6 $\frac{1}{2}$ 5 $\frac{1}{2}$	140—185 162	119,234	752,278	54·3		
30 Sept.	96 $\frac{4}{8}$	44 7	4 $\frac{1}{4}$ —6 $\frac{1}{4}$ 5 $\frac{1}{4}$	4 $\frac{1}{2}$ —6 $\frac{1}{2}$ 5 $\frac{1}{2}$	65—90 77	107,197	705,301	61·0		
31 Dec.	98 $\frac{1}{4}$	41 9	4—6 $\frac{1}{2}$ 5 $\frac{1}{4}$	4 $\frac{1}{4}$ —6 $\frac{3}{4}$ 5 $\frac{1}{2}$	80—95 87	115,751	710,904	43·8		
1859										
31 Mar.	95 $\frac{5}{8}$	40 8	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	4 $\frac{3}{4}$ —7 5 $\frac{7}{8}$	80—100 90	122,854	742,964	43·3		
30 June	92 $\frac{7}{8}$	47 3	4 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{5}{8}$	5—7 6	85—110 97	109,150	710,410	53·7		
30 Sept.	95 $\frac{3}{8}$	44 0	4 $\frac{1}{4}$ —6 $\frac{1}{4}$ 5 $\frac{1}{4}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	65—105 85	100,582	682,867	62·8		
31 Dec.	96 $\frac{1}{8}$	43 4	4—6 $\frac{1}{2}$ 5 $\frac{1}{4}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	85—120 102	109,429	683,962	43·3		
1860										
31 Mar.	94 $\frac{5}{8}$	44 5	3 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—145 130	118,523	717,264	38·8		

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The *average* of the highest and of the lowest prices is here shown in cols. 4, 5, and 6, and not the *absolute* highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns relate to 645 Unions, &c., comprising a population of 17,670,935 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1858, to—Insane Persons, 19,487; Vagrants, 2,265. The rest of the paupers on that day amounted to 880,280.



winter quarter of 1858, was 44 per cent. higher than the average price (90s.) of last year.

The *Mean Temperature* of the three months was 38·8°; February being the coldest month, 35·7°; and March, 41·1°, little warmer on the average than January, 39·7°. The characteristics of the season were: warmth on New Year's Day (16° above the average temperature), and in the following days until January 25th, when cold weather set in and continued to the end of the quarter; the frequent and great changes of the atmospheric pressure; and an almost continuous succession of gales of wind.

Mr. Glaisher has described the meteorology of the quarter in detail.

Pauperism is declining.

STATE OF THE PUBLIC HEALTH.—122,642 deaths were registered in the Winter quarter. The rate of mortality cannot be precisely determined, as it is nine years since the Census was taken; but if we assume that the estimate, based on the previous Censuses and the excess of births over deaths, is nearly correct, the rate of the mortality for the quarter was 2·472 per cent. or slightly above the

*DEATHS in the Winter Quarters, ended March 31st, 1853-60.—Numbers.*

DEATHS, &c.	1860.	Total 1850-59, (10 Years.)	1859.	1858.	1857.	1856.	1855.	1854.	1853.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i> .....	63,215	580,833	62,096	63,652	57,050	53,973	62,244	58,947	59,604
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and <i>Country Parishes</i> ...	59,427	552,998	59,586	62,167	51,615	49,041	66,298	52,896	58,515
All England .....	122,642	1,133,831	121,682	125,819	108,665	103,014	128,542	111,843	118,119

*AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Winter Quarters, ended March 31st, 1850-60.*

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Autumn Quarters, 1850-59.	Average Annual Rate of Mortality per Cent. of 10 Winter Quarters, 1850-59.	Annual Rate of Mortality per Cent. in the Winter Quarter 1860.
		June 6-7th, 1841.	March 31st, 1851.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i> .....	No. 2,149,800	No. 6,838,069	No. 8,247,017	No. 580,833	Per ct. 2·635	Per ct. 2·613
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i> .....	35,175,115	9,076,079	9,680,592	552,998	2·233	2·338
All England .....	37,324,915	15,914,148	17,927,609	1,133,831	2·460	2·472

average of the season (2·460); which in the absence of epidemics is always the most fatal in England.

The rate of mortality in the *Chief Town* districts was 2·613; in the *Small Town* and *Country* district 2·338 per cent. The latter rate is above, the former below, the average of those districts respectively.

The deaths in the quarter, at the rates actually prevailing in the healthier districts of the country, would have amounted to 88,708; the actual deaths amounted to 122,642. Consequently the deaths from causes induced by the unfavourable sanitary condition in which large numbers of the people live, amount to 33,934.

The mortality of LONDON was above the average; it is described in the weekly tables.

10,059 children were born and 6,336 persons married in the EASTERN COUNTIES; 6,580 deaths were registered, and the mortality was much lower than it was in the winter of 1858, but higher than it was in the preceding winter. The births in Colchester, which is a garrison town, are unusually numerous; the deaths are below the average, but influenza and whooping-cough have prevailed. The cold winds have undoubtedly been severely felt in Norfolk and Suffolk; but the considerable amount of sickness has not greatly raised the mortality. In Stalham and Fincham, however, the deaths exceeded the births; 16 persons died of diphtheria in Stalham, 8 in Fincham.

Disease is propagated in parts of Cornwall by defective sanitary arrangements. Thus diphtheria has been fatal in Kea. The Registrar of Callington makes the following observation:—"This district is at this time rather unhealthy. During 'the quarter I have registered 8 deaths from typhus (probably typhia), two 'of which, those of mother and child, were in one house, and now the father and 'three other children are ill. The medical officer in his report to the board 'of guardians, dated 28th March, says that 'these children absolutely require 'removal from the wretched hot-bed of fever in which they now lie; they require 'careful and constant nursing, cleanliness, ventilation, beef-tea *ad libitum*, port 'wine, and various other articles.'" Again at Camborne 6 deaths occurred from scarlatina, 2 from diphtheria, 8 from fever; the latter occurring in parts of the town where drainage and sewerage are much neglected.

In the WEST MIDLAND COUNTIES the marriages and births were above, the deaths below, the average numbers. 12,602 persons married; 23,833 children were born; 14,913 persons died. The health of the large towns of this division is evidently improving; the fatality of disease is less than it was in Bristol and Clifton, where the deaths during the three last winters were 1,194, 976, 876; in Birmingham and Aston 2,046, 1,925, 1,741. If the municipal authorities succeed in supplying all the towns with pure water, and removing all the disinfected night-soil and refuse to the fields, they will witness still further diminutions in the heavy death-rate which is now levied on the inhabitants.

The marriages as well as births increased; the rate of mortality decreased in LANCASHIRE and YORKSHIRE. 13,068 persons married, 23,122 births, and 16,038 deaths, were registered in Lancashire; 11,122 persons married, 19,142 births, and 12,614 deaths, were registered in Yorkshire. The mortality fell in Liverpool and Manchester. The decrease of the mortality is ascribed to the rise of wages, the active employment of the people in the factories, and to the sanitary improvements, which are so imperatively required in these two great counties.

In the NORTHERN COUNTIES 5,206 persons married; 10,880 births, and 6,683 deaths were registered. The deaths are rather more numerous than they were last year; but the mortality is lower. Small-pox, diphtheria, scarlatina, and fever prevailed in some districts, especially those which are left in a dirty state.

In MONMOUTHSHIRE and WALES 6,382 persons married; 11,771 births, and 8,173 deaths were registered. The mortality was below the average of Wales.

**MARRIAGES Registered in Quarters ended 31st December, 1857-59; and  
BIRTHS and DEATHS in Quarters ended 31st March, 1858-60.**

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA in Statute	POPULATION, 1851. (Persons.)	MARRIAGES in Quarters ended 31st December.		
			'59.	'58.	'57.
ENGLD. & WALES....Totals	Acres. 37,324,915	No. 17,927,609	No. 50,500	No. 47,663	No. 45,840
I. London .....	78,029	2,362,236	7,349	7,162	6,673
II. South Eastern .....	4,065,935	1,628,416	4,216	3,911	3,872
III. South Midland .....	3,201,290	1,234,332	3,221	3,191	3,177
IV. Eastern .....	3,214,099	1,113,982	3,168	3,236	3,042
V. South Western .....	4,993,660	1,803,261	4,074	3,743	3,622
VI. West Midland .....	3,865,332	2,136,573	6,301	6,205	5,982
VII. North Midland .....	3,540,797	1,215,501	3,161	2,967	2,769
VIII. North Western .....	2,000,227	2,488,438	7,655	6,865	6,269
IX. Yorkshire .....	3,654,636	1,789,047	5,561	4,912	4,631
X. Northern .....	3,492,322	969,126	2,603	6,509	2,603
XI. Monmthsh. & Wales	5,218,588	1,186,697	3,191	2,962	3,200

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 31st March.			DEATHS in Quarters ended 31st March.		
	'60.	'59.	'58.	'60.	'59.	'58.
ENGLD. & WALES....Totals	No. 183,206	No. 175,429	No. 170,959	No. 122,642	No. 121,682	No. 125,819
I. London .....	25,065	24,156	23,638	18,814	15,999	17,148
II. South Eastern .....	15,447	15,049	14,391	9,987	9,765	10,419
III. South Midland .....	11,743	11,513	11,216	7,388	7,235	7,937
IV. Eastern .....	10,069	10,326	9,796	6,580	6,211	7,599
V. South Western .....	15,909	15,399	14,701	10,852	10,798	11,337
VI. West Midland .....	23,833	22,570	22,274	14,913	16,144	15,771
VII. North Midland .....	11,849	11,380	10,922	7,546	8,955	8,030
VIII. North Western .....	27,508	25,898	25,809	19,092	19,431	19,817
IX. Yorkshire .....	19,142	17,548	17,563	12,614	12,304	12,352
X. Northern .....	10,880	10,448	9,814	6,683	6,590	6,579
XI. Monmthsh. & Wales	11,771	11,142	10,635	8,173	8,250	8,830



## REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING MARCH 31st, 1860.

By JAMES GLAISHER, ESQ., F.R.S., &c., *Sec. of the British Meteorological Society.*

The weather during the past quarter has been remarkable for a long continuance of low temperature; frequent and great changes in the pressure of the atmosphere, and an almost continuous succession of gales of wind.

The warm period which set in on December 24th, 1859, continued to January 24th, 1860; the excess of the temperature on the first day of the year was  $16^{\circ}$ , that of the second  $11^{\circ}$ , and of the third was  $13^{\circ}$ , and from January 1st to the 24th, it averaged  $4^{\circ}1$  daily; on the 25th a cold period set in, at first not severely, but became so afterwards, and continued, with very few and trifling exceptions, to the end of the quarter, the average defect of the 67 days ending March 31st, was  $1\frac{1}{2}^{\circ}$  daily below the average.

The mean high day temperature of January was  $1^{\circ}9$  above, of February was  $2^{\circ}2$  below, and of March was  $0^{\circ}8$  below their averages.

The mean low night temperature of January was  $1^{\circ}2$  above, of February was  $3^{\circ}4$  below, and of March was  $0^{\circ}3$  below their averages.

Therefore both the days and nights in January were warm; in February were both cold, particularly the nights, and both were cold in March, but the nights less so than the days.

The mean temperature of January was  $1\frac{1}{2}^{\circ}$  in excess; of February was  $3^{\circ}$  nearly in defect; and of March  $\frac{3}{4}^{\circ}$  in defect as compared with the average of the preceding nineteen years. As compared with the year 1859, January was  $\frac{3}{4}^{\circ}$ , February  $7\frac{1}{2}^{\circ}$ , and March  $5\frac{1}{4}^{\circ}$  colder.

At many places the month of *January* was the warmest in the quarter; at extreme southern stations *February* was  $4^{\circ}9$  colder than *January*; at places situated between the parallels,  $50\frac{1}{2}^{\circ}$  and  $52^{\circ}$ , it was  $4^{\circ}$  colder; between  $52^{\circ}$  and  $53^{\circ}$  it was  $3^{\circ}$  colder; and north of  $53^{\circ}$  it was  $2\frac{1}{4}^{\circ}$  colder.

*March* was warmer than *February* by  $4^{\circ}8$  at extreme southern stations; by  $5^{\circ}3$  at stations between the parallels  $50\frac{1}{2}^{\circ}$  and  $52^{\circ}$ ; by  $5^{\circ}$  at those between  $52^{\circ}$  and  $53^{\circ}$ ; and by  $3^{\circ}5$  at extreme northern stations.

The mean pressure of the atmosphere in *January* and *March* was below its average by a quarter of an inch; in *February* it was slightly in excess, as found from the preceding nineteen years, and within this period the mean reading of the barometer has not been so low in *January* as it was in this year.

The decrease of mean pressure of the atmosphere was about  $0.03$  inch for an increase of  $1^{\circ}$  of latitude.

The range of the barometer in *January* at extreme southern stations was  $1.6$  inch, in *February* was  $1.0$  inch, and in *March* was  $1.7$  inch, these values gradually increased going northwards to  $1.8$  inch in *January*, and to  $2$  inches nearly, both in *February* and *March*.

The temperature of the dew-point in *January* was  $\frac{3}{4}^{\circ}$  in excess, differing but little from the excess of the mean temperature of the month, and therefore the degree of humidity was very nearly that of the average for the month. In *February* and *March* the temperature of the dew-point was more below its average

than the temperature of the air was below its average, and therefore the air was drier in both months than their averages.

*The temperature of vegetation*, as indicated by a thermometer placed on grass, was below 30° on 58 nights during the quarter; of these 16 were in February. Vegetation is very backward.

*The wind.* The air has been in rapid motion for one hour out of two throughout the quarter; a succession of gales of wind of unusual duration have been frequent. From January 20th, the wind blew continuously for 40 hours, and pressures of 18 lbs. on the square foot were recorded; pressures to the same amount took place on the 23rd day, when the wind blew without ceasing for 23 hours. For 40 hours following February 1st, 9 h. a.m., the wind was in rapid motion; and again for 46 hours from the 5th, and pressures of 12 lbs. were recorded; again for 30 hours following February 7d. 2 h., for 47 hours following February 15 d. 4 h., for 57 hours continuously from February 19 d. 4 h. a.m.; and for 42 hours following February 27 d. 10 h. a.m.; in this gale a pressure of 28 lbs. was registered; and this kind of stormy weather continued to the end of the quarter.

*The mean temperature of the air* at Greenwich for the three months ending February, constituting the three winter months, was 37°·4, being 0°·4 below the average of 89 years.

1860. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 89 Years.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.		Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.
Jan. ....	39·7	+3·6	+1·5	38·2	+1·1	36·2	+0·8	10·2	+0·7	42·1	In. ·214	In. +·009	Gr. 2·5	Gr. +0·1
Feb. ....	35·7	-2·6	-2·8	33·6	-3·4	30·4	-4·2	12·4	+1·1	36·6	·170	-·032	2·0	-0·3
Mar. ....	41·1	+0·2	-0·7	38·4	-1·0	35·0	-1·4	14·2	-0·5	42·3	·204	-·013	2·4	-0·1
Mean.....	38·8	+0·4	-0·7	36·7	-1·1	33·9	-1·6	12·3	+0·4	40·3	·196	-·012	2·3	-0·1

1860. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Amnt.	Diff. from Average of 45 Years.		Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
										At or below 30°	Between 30° and 40°.	Above 40°.		
Jan. ....	88	— 1	In. 29·514	In. —·248	Gr. 548	— 6	In. 1·8	In. 0·0	Miles. —	11	13	3	18·3	48·0
Feb. ....	80	— 6	29·857	+·074	559	+ 5	1·1	—0·5	—	21	3	0	9·5	33·5
Mar. ....	79	— 3	29·655	—·145	549	— 2	1·9	+0·4	—	17	11	3	21·0	45·0
Mean.....	82	— 3	29·675	—·106	552	— 1	Sum 4·8	Sum —0·1	Mean —	Sum 3	Sum 27	Sum 6	Lowest 9·5	Highest 48·0

*Note.*—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

## ENGLAND.—Meteorological Table, Quarter ended 31st March, 1860.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey .....	29·681	54·5	27·5	27·0	21·6	6·9	42·0	86
Exeter .....	29·668	56·7	25·0	31·7	27·6	10·8	41·2	85
Ventnor .....	29·648	54·0	26·0	28·0	24·6	8·7	42·0	79
Barnstaple .....	29·649	55·0	26·2	28·8	26·6	10·6	41·4	86
Royal Observatory	29·648	59·5	23·2	36·3	31·4	12·2	38·8	82
Royston.....	29·648	57·8	18·3	39·5	32·3	12·5	37·7	87
Lampeter .....	29·623	54·4	17·6	36·8	33·1	13·6	38·6	90
Norwich .....	29·604	58·0	15·0	43·0	33·0	11·0	38·3	86
Belvoir Castle ...	29·595	58·0	20·3	37·7	33·5	11·3	36·7	89
Nottingham .....	29·607	57·8	19·8	38·0	33·8	13·3	37·7	86
Liverpool .....	29·670	54·5	28·4	26·1	21·5	7·5	39·9	83
Wakefield .....	29·584	57·5	19·0	38·5	34·1	13·6	37·8	83
Stonyhurst.....	29·552	53·1	17·7	35·4	31·1	10·7	37·1	87
Scarborough .....	29·659	57·0	24·0	33·0	25·1	7·3	37·8	90
Isle of Man .....	29·536	52·5	22·2	30·3	25·9	9·5	39·4	93
North Shields ...	29·618	54·0	18·9	35·1	28·3	8·9	36·6	89

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey .....	2·0	8	5	7	10	5·6	54	10·9
Exeter .....	1·8	9	3	5	12	6·9	75	7·4
Ventnor .....	—	6	5	6	13	—	41	7·6
Barnstaple .....	1·3	9	3	5	12	4·4	60	10·8
Royal Observatory	—	6	3	8	13	6·9	52	4·8
Royston.....	—	7	1	9	12	6·4	79	5·9
Lampeter .....	0·6	7	5	6	10	6·8	56	13·9
Norwich.....	1·7	5	4	7	13	6·6	39	7·3
Belvoir Castle ...	2·9	6	0	10	13	5·8	48	5·7
Nottingham .....	0·4	3	2	9	16	6·8	61	6·7
Liverpool .....	1·2	—	—	—	—	7·1	45	5·0
Wakefield .....	2·1	5	4	6	13	7·0	60	6·5
Stonyhurst.....	0·7	7	3	7	12	6·9	67	10·6
Scarborough .....	3·0	5	2	10	13	—	26	4·0
Isle of Man .....	1·6	9	4	7	9	5·6	57	11·1
North Shields ...	1·9	11	3	6	10	6·0	56	10·8



POOR RELIEF.—YEARS ended Lady-day, 1856-7-8-9, England and Wales.—RECEIPTS and EXPENDITURE.

IN the *Journal* for September, 1859 (page 441, vol. xxii), we gave an abstract of the (D) Return of the Poor Law Board for the Years ended Lady-day, 1858. We now continue the abstract for the year ended Lady-day, 1859, according to the results set forth in Parl. Paper, 208/59.

The Number of Parishes making returns in 1858-9 was 14,698, against 14,615 in 1857-8; the Population in 1851 being 17,927,000 persons.

“NET ANNUAL VALUE” and “GROSS ESTIMATED RENTAL” for Poor Rate purposes in the Parochial Years as under.

Years.	Poor Rate Valuations.		Amount of Poor Rates Levied.	Rate in the £ of Levy on		Expended for Relief to the Poor.	Rate in the £ for Relief on	
	Gross Estimated Rental.	Net Annual Value.		Gross Estimated Value.	Net Annual Value.		Gross Estimated Rental.	Net Annual Value.
	£	£	£	s. d.	s. d.	£	s. d.	s. d.
1840-41....	{ not known }	62,540,	6,352,	—	2 0·4	4,761,	—	1 6·3
1846-47....	„	67,321,	6,965,	—	2 0·8	5,299,	—	1 6·9
1849-50...	„	67,700,	7,270,	—	2 1·8	5,395,	—	1 7·1
1855-56....	86,078,	71,840,	8,201,	1 10·9	2 3·4	6,004,	1 4·7	1 8·1

The “Gross Estimated Rental” as given in this table for 1855-6, is the first general return of the kind. In the fifteen years, 1840-55, the *Net Annual Value* of Rateable Property was increased by 9,300,000*l.*, or 14·9 *per cent.*—or a *yearly* increase of 1 *per cent.* The Net Annual or Rateable Value in 1855-6 is, according to the above figures, 16½ *per cent.* below the Gross Estimated Rental. How far the *Gross Estimated Rental* is below the *actual letting rent* of the property, there are at present no means of ascertaining.

Poor Relief, 1856-7-8-9.—COLLECTION and EXPENDITURE.

1	2	3	4	5	6	7	8	9	10
Years ended at Lady-day.	Total Re-ceipts.	Expenditure.					Rate per Head.		Average Price of <i>Wheat</i> per Imperial Quarter.
		In Relief of the Poor.				Expended for all other Purposes.	Total Levy.	Of which was applied to Relief to the Poor.	
		In-Maintenance.	Out-Relief.	Workhouse Loans Repaid, Interest, Salaries, and other Expenses.	Total of 3, 4, 5.				
	£	£	£	£	£	£	s. d.	s. d.	s. d.
1856....	8,496,	1,140,	3,239,	1,625,	6,004,	2,208,	8 7¼	6 3¾	75 4
1857....	8,441,	1,088,	3,152,	1,658,	5,899,	2,440,	8 5¼	6 1¾	65 3
1858...	8,492,	1,068,	3,117,	1,693,	5,878,	2,571,	8 5½	6 -¾	53 9
1859...	8,435,	955,	2,923,	1,681,	5,559,	2,591,	8 3½	5 8	42 9

Note.—The 000's at unit end are omitted.

POOR RELIEF.—YEAR ended Lady-day, 1859.—England and Wales.—  
Details of Expenditure in Leading Classes.

TERRITORIAL DIVISIONS (England and Wales).	Estimated Population, 1859.	Rate per Head of Population Expended in Relief to the Poor.	Proportion per Cent. to Total Relief of					
			(a) In- Main- tenance.	(b) Out- Relief.	(c) Main- tenance of Lunatics in Asylums	(d) Work- house Loans and Interest.	(e) Salaries and Rations of Officers.	(f) Other Ex- penses of Relief.
	No.	s. d.	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.
1. The Metropolis ....	2,720,000	5 11 9	33 8	25 5	11 0	6 2	10 9	12 6
2. South-Eastern .....	1,746,000	7 9 4	20 0	48 7	7 3	2 3	13 3	8 4
3. South Midland.....	1,305,000	7 8 2	13 9	58 9	7 3	1 3	11 9	6 7
4. Eastern.....	1,169,000	7 11 2	14 3	56 7	5 9	2 7	12 9	7 5
5. South-Western.....	1,845,000	6 7 3	11 3	63 3	6 2	2 4	11 7	5 1
6. West Midland .....	2,314,000	4 9 6	15 5	52 0	9 0	3 0	13 0	7 5
7. North Midland.....	1,299,000	5 2 6	13 5	59 7	7 6	2 0	11 2	6 0
8. North-Western ...	2,859,000	3 10 8	17 7	45 5	6 9	7 7	11 9	10 3
9. York.....	1,952,000	4 2 6	12 8	61 1	6 6	3 3	9 2	7 0
10. Northern .....	1,087,000	4 4 4	13 1	62 4	5 4	3 3	9 9	5 9
11. Welsh .....	1,282,000	6 0 7	6 3	75 9	4 8	1 7	7 9	3 4
England and Wales	19,578,000	5 8 0	17 0	52 6	7 6	3 5	11 5	7 8

Poor Rate Expenditure (England and Wales) for purposes Unconnected with Relief.  
—Average Results in Groups of Years, 1834-59.

1	2	3	4	5	6	7
Average of Years ended at Lady-day as under.	Payments for or towards the County, Hundred, or Borough Rate, or Police Rate.	Constable's Expenses, and Costs of Proceeding before Justices.	Payments on Account of the Registration Act, viz., Fees to Clergymen, and Registrar's Outlay for Register Office, Books, and Forms.	Vaccination Fees.	Expenses allowed in respect of Parliamentary or Municipal Registration; and Costs of Jury Lists.	TOTAL.
	£	£	£	£	£	£
1834-40 ....	711,444	—	46,398	—	—	731,329
1841- 5 ....	1,237,757	57,988	54,697	20,943	20,153	1,329,026
1846-50 ....	1,345,163	57,993	57,393	24,108	25,652	1,510,311
1851- 5 ....	1,444,752	58,363	58,363	35,835	30,564	1,629,896
1856- 9 ....	1,796,457	54,126	54,126	43,248	32,195	1,990,812



Trade of United Kingdom, 1859-8-7.—*Distribution of Exports from, United Kingdom according to the Declared Real Value of the Exports; and the Computed Real Value (ex-dut) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	Whole of Year.					
	1859.		1858.		1857.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
<b>I.—FOREIGN COUNTRIES:</b>	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	19,608,	5,868,	16,317,	4,415,	{ not } { given }	4,3
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	20,735,	18,631,	17,879,	20,023,	—	21,2
Western Europe; viz., France, Portugal (with the Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	22,180,	8,960,	17,525,	9,457,	—	10,5
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	4,610,	5,558,	4,099,	6,408,	—	5,5
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	12,519,	6,737,	9,786,	7,179,	—	5,9
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	289,	124,	329,	109,	—	1
Western Africa	1,526,	710,	1,572,	691,	—	7
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, and Bourbon..	61,	272,	117,	52,	—	
Indian Seas, Siam, Singapore, Sumatra, Java, and Philippines	2,249,	3,193,	1,680,	2,336,	—	2,1
China, including Hong Kong	9,112,	4,460,	7,043,	2,877,	—	2,4
South Sea Islands	12,	115,	6,	67,	—	
United States, including California	34,295,	22,611,	34,281,	14,511,	—	18,9
Mexico and Central America	667,	825,	415,	808,	—	8
Foreign West Indies	3,828,	2,557,	4,064,	2,590,	—	3,0
South America, (Northern,) New Granada, Venezuela, and Ecuador	585,	1,069,	465,	849,	—	9
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres	5,205,	5,337,	3,971,	5,508,	—	7,3
„ (Pacific,) Peru, Bolivia, Chili, and Patagonia	3,772,	2,332,	6,838,	2,277,	—	2,6
Whale Fisheries; Grnld., Davis's Straits, Southn. Whale Fishery, Falkland Islands...	168,	11,	234,	—	—	
<i>Total.—Foreign Countries</i>	141,421,	89,370,	126,621,	80,157,	—	87,9
<b>II.—BRITISH POSSESSIONS:</b>						
British India and Ceylon	16,901,	20,500,	16,662,	17,323,	—	12,1
Austral. Cols.—New South Wales and Victoria	4,241,	9,344,	4,004,	8,339,	—	9,7
„ „ So. Aus., Tasm., and N. Zea.	1,601,	1,881,	1,252,	2,125,	—	1,8
British North America	5,476,	3,615,	4,654,	3,159,	—	4,3
„ W. Indies with Btsh. Guiana & Honduras	5,688,	2,278,	6,672,	2,390,	—	2,5
Mauritius	1,640,	567,	1,503,	602,	—	6
Channel Islands	480,	613,	442,	508,	—	5
Cape and Natal	1,689,	1,937,	1,714,	1,703,	—	1,8
Br. W. Co. of Af., with St. Helena & Ascension	197,	335,	270,	305,	—	4
<i>Total.—British Possessions</i>	37,913,	41,070,	37,173,	36,454,	—	34,1
<i>General Total</i> .....£	179,334,	130,440,	163,794,	116,611,	—	122,0



IMPORTS.—(United Kingdom.)—Years 1859-8-7-6.—*Computed Real Value, at Port of Entry, of Articles of Foreign and Colonial Merchandize Imported into the United Kingdom.* (000's omitted.)

(Whole Year.) FOREIGN ARTICLES IMPORTED.		1859.	1858.	1857.	1856.
		£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool ...	34,568,	30,107,	29,289,	26,448,
	Wool (Sheep's)..	9,831,	8,972,	9,682,	8,664,
	Silk .....	10,596,	6,111,	14,229,	8,496,
	Flax .....	3,769,	3,021,	3,525,	3,633,
	Hemp .....	2,363,	1,873,	1,953,	1,985,
	Indigo .....	1,929,	2,292,	2,185,	2,454,
		63,056,	52,376,	60,863,	51,680,
,, , <i>Various.</i>	Hides .....	3,373,	2,480,	4,474,	2,806,
	Oils .....	3,654,	3,636,	4,025,	3,982,
	Metals .....	3,887,	3,710,	4,017,	3,914,
	Tallow .....	2,933,	3,042,	3,285,	2,926,
	Timber .....	8,163,	5,964,	7,564,	8,529,
		22,010,	18,832,	23,365,	22,157,
,, , <i>Agricul.</i>	Guano .....	769,	4,084,	3,613,	2,136,
	Seeds .....	3,042,	2,710,	3,062,	3,196,
		3,811,	6,794,	6,675,	5,332,
TROPICAL, & C., PRODUCE.	Tea .....	5,813,	5,207,	4,677,	5,249,
	Coffee .....	1,956,	1,742,	1,720,	1,498,
	Sugar & Molasses	12,539,	13,468,	16,407,	12,504,
	Tobacco .....	1,817,	2,531,	2,182,	2,224,
	Rice .....	805,	1,653,	1,959,	1,987,
	Fruits .....	1,599,	1,290,	1,479,	1,579,
	Wine .....	2,781,	2,041,	4,081,	3,741,
	Spirits .....	2,238,	1,250,	2,788,	2,190,
		29,538,	29,182,	35,293,	30,972,
FOOD .....	Grain and Meal..	17,894,	19,993,	19,239,	22,971,
	Provisions .....	3,372,	3,139,	4,019,	4,730,
		21,266,	23,132,	23,258,	27,701,
Remainder of Enumerated Articles .....		3,379,	3,023,	3,930,	3,467,
TOTAL ENUMERATED IMPORTS.....		143,060,	133,339,	153,384,	141,309,
Add for UNENUMERATED IMPORTS (say)		35,765,	33,335,	38,346,	35,327,
TOTAL IMPORTS.....		178,825,	166,674,	191,730,	176,636

IMPORTS. — (United Kingdom.) — First Two Months (*Jan. — Feb.*),  
1860-59-8-7.—*Computed Real Value, at Port of Entry, of Articles of  
Foreign and Colonial Merchandize Imported into United Kingdom.*

(000's omitted.)

(First Two Months.) FOREIGN ARTICLES IMPORTED.		1860.	1859.	1858.	1857.
		£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool ....	5,338,	3,952,	2,138,	3,029,
	Wool (Sheep's)..	660,	418,	451,	433,
	Silk .....	1,385,	2,313,	688,	2,588,
	Flax .....	297,	243,	107,	206,
	Hemp .....	58,	72,	54,	43,
	Indigo .....	93,	76,	134,	75,
		7,831,	7,074,	3,572,	6,374,
" " <i>Various.</i>	Hides .....	299,	140,	127,	332,
	Oils .....	363,	306,	180,	233,
	Metals .....	349,	287,	215,	335,
	Tallow .....	134,	86,	113,	218,
	Timber.....	363,	275,	265,	459,
		1,508,	1,094,	900,	1,577,
" " <i>Agricul.</i>	Guano .....	134,	88,	221,	56,
	Seeds .....	317,	326,	207,	129,
		451,	414,	428,	185,
TROPICAL, & C., PRODUCE.	Tea ... ..	1,158,	476,	416,	848,
	Coffee .....	188,	118,	97,	96,
	Sugar & Molasses	1,111,	1,097,	904,	1,214,
	Tobacco .....	43,	67,	76,	194,
	Rice .....	87,	24,	149,	59,
	Fruits .....	100,	80,	60,	145,
	Wine .....	391,	242,	227,	312,
	Spirits .....	215,	168,	75,	159,
		3,293,	2,272,	2,004,	3,027,
FOOD .....	Grain and Meal..	1,709,	1,993,	2,595,	2,488,
	Provisions .....	649,	352,	330,	556,
		2,358,	2,345,	2,925,	3,044,
Remainder of Enumerated Articles .....		431,	308,	281,	488,
TOTAL ENUMERATED IMPORTS....		15,872,	13,507,	10,110,	14,695,
Add for UNENUMERATED IMPORTS (say)		3,968,	3,377,	2,527,	3,674,
TOTAL IMPORTS .....		19,840,	16,884,	12,637,	18,369,

**EXPORTS. — (United Kingdom.) — First Three Months (Jan. — March), 1860-59-8-7-6.—Declared Real Value of Articles of BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.**

(First Three Months.) BRITISH PRODUCE, &C., EXPORTED.		1860.	1859.	1858.	1857.	1856.
(Unit 000's omitted.)		£	£	£	£	£
<b>MANFRS.—Textile.</b>	<b>Cotton Manufactures..</b>	9,389,	9,550,	6,981,	7,664,	6,723,
	„ Yarn .....	2,425,	2,303,	2,144,	1,787,	1,931,
	<b>Woollen Manufactures</b>	3,005,	2,948,	1,941,	2,674,	2,155,
	„ Yarn .....	807,	545,	450,	581,	643,
	<b>Silk Manufactures ..</b>	503,	559,	320,	767,	537,
	„ Yarn .....	48,	50,	39,	99,	56,
	<b>Linen Manufactures...</b>	1,122,	1,177,	970,	1,249,	1,153,
	„ Yarn .....	469,	475,	317,	389,	311,
		17,768,	17,607,	13,162,	15,210,	13,514,
„	<b>Sewed. Apparel .....</b>	462,	452,	374,	431,	358,
	<b>Haberdy. and Millnry.</b>	989,	1,085,	755,	1,080,	884,
		1,451,	1,537,	1,129,	1,511,	1,242,
<b>METALS .....</b>	<b>Hardware and Cutlery</b>	816,	834,	679,	903,	790,
	<b>Machinery .....</b>	663,	576,	659,	678,	480,
	<b>Iron .....</b>	2,395,	2,604,	1,912,	2,973,	2,579,
	<b>Copper and Brass.....</b>	676,	664,	645,	675,	608,
	<b>Lead and Tin .....</b>	573,	584,	389,	598,	452,
	<b>Coals and Culm .....</b>	618,	608,	564,	607,	520,
		5,741,	5,870,	4,848,	6,434,	5,429,
<b>Ceramic Manufcts.</b>	<b>Earthenware and Glass</b>	480,	442,	370,	510,	447,
<b>Indigenous Mnfrs.</b>	<b>Beer and Ale .....</b>	645,	572,	452,	467,	382,
	<b>Butter .....</b>	139,	161,	100,	144,	151,
	<b>Cheese .....</b>	26,	30,	13,	32,	24,
	<b>Candles .....</b>	63,	32,	27,	73,	42,
	<b>Salt .....</b>	61,	39,	40,	70,	70,
	<b>Spirits .....</b>	60,	56,	51,	253,	160,
	<b>Soda .....</b>	226,	251,	134,	157,	121,
		1,220,	1,141,	817,	1,196,	950,
<b>Various Manufcts.</b>	<b>Books, Printed.....</b>	101,	101,	87,	103,	81,
	<b>Furniture .....</b>	48,	51,	57,	60,	34,
	<b>Leather Manufactures</b>	514,	431,	436,	512,	331,
	<b>Soap .....</b>	63,	39,	39,	62,	64,
	<b>Plate and Watches ...</b>	120,	126,	113,	121,	89,
	<b>Stationery.....</b>	181,	185,	166,	178,	146,
		1,027,	933,	898,	1,036,	745,
<b>Remainder of Enumerated Articles .....</b>		707,	771,	600,	737,	832,
<b>Unenumerated Articles .....</b>		2,087,	2,219,	1,686,	2,193,	1,990,
<b>TOTAL EXPORTS .....</b>		30,481,	30,520,	23,510,	28,827,	25,149,



SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Three Months (*Jan.—March*) 1860-59-8-7.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Three Months.)  ENTERED:—  <i>Vessels belonging to—</i>	1860.			1859.		1858.		1857.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia .....	39	15,	384	39	13,	10	4,	14	3,
Sweden .....	70	17,	243	60	15,	36	9,	36	8,
Norway .....	182	42,	230	124	31,	149	36,	202	39,
Denmark .....	328	34,	103	253	29,	204	24,	406	41,
Prussia and Ger. Sts. ....	311	79,	25	265	74,	235	69,	457	84,
Holland and Belgium ....	271	40,	147	273	44,	184	31,	292	49,
France .....	302	27,	89	584	46,	558	45,	223	17,
Spain and Portugal .....	61	17,	278	75	18,	103	23,	78	16,
Italy & other Eupn. Sts.	117	37,	316	186	61,	155	46,	32	10,
United States .....	331	326,	985	197	199,	255	255,	279	275,
All other States .....	7	2,	285	4	1,	3	2,	6	2,
United Kingdm. & } Depds. ....	2,019	636,	315	2,060	531,	1,892	544,	2,025	544,
	3,712	1,113,	299	3,698	972,	3,397	894,	3,256	893,
<i>Totals Entered</i>	5,731	1,749,	305	5,758	1,503,	5,289	1,438,	5,281	1,437,
CLEARED:—									
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
Russia .....	70	25,	357	68	24,	51	19,	30	9,
Sweden .....	116	29,	250	75	23,	87	25,	88	26,
Norway .....	207	52,	251	91	25,	109	27,	145	39,
Denmark .....	412	46,	111	269	33,	222	29,	419	50,
Prussia and Ger. Sts. ....	564	133,	235	428	118,	302	86,	578	118,
Holland and Belgium ....	322	53,	164	320	55,	225	52,	341	65,
France .....	697	76,	109	759	80,	765	92,	582	66,
Spain and Portugal .....	69	19,	275	73	17,	84	19,	72	15,
Italy & other Eupn. Sts.	206	64,	310	266	83,	347	107,	67	23,
United States .....	340	327,	961	246	2,240,	225	205,	331	319,
All other States .....	6	2,	333	5	31,	5	2,	4	2,
United Kingdm. & } Depds. ....	3,009	826,	274	2,600	729,	2,422	663,	2,657	732,
	4,683	1,339,	286	4,998	1,346,	4,342	1,152,	5,404	1,364,
<i>Totals Cleared</i>	7,692	2,165,	281	7,598	2,075,	6,764	1,815,	8,061	2,069,

OLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—*Computed Real Value for the First Three Months (Jan.—March), 1860-59-8.* (Unit 000's omitted.)

First Three Months.)	1860.			1859.			1858.		
	Gold.	Silver.	TOTAL.	Gold.	Silver.	TOTAL.	Gold.	Silver.	TOTAL.
Imported from:—	£	£	£	£	£	£	£	£	£
Australia .....	1,640,	—	1,640,	1,540,	—	1,540,	1,801,	—	1,801,
Amca. and W. } ndies .....	269,	1,252,	1,521,	469,	414,	883,	1,389,	960,	2,349,
ted States and } al. ....	507,	142,	649,	1,150,	177,	1,327,	2,557,	78,	2,635,
ance .....	2,416,	1,394,	3,810,	3,159,	591,	3,750,	5,747,	1,038,	6,785,
se Towns, Holl. } t Belg. ....	35,	1,347,	1,382,	225,	2,210,	2,435,	331,	933,	1,264,
gl., Spain, and } brltr. ....	5,	648,	653,	327,	1,609,	1,936,	985,	219,	1,204,
a., Trky., and } gypt .....	6,	93,	93,	6,	16,	22,	99,	146,	245,
na .....	1,	1,	2,	129,	3,	132,	584,	9,	593,
st Coast of Africa } ther Countries...	—	—	—	—	—	—	27,	69,	96,
	32,	2,	34,	20,	1,	21,	24,	4,	28,
	1,	4,	5,	19,	6,	25,	14,	22,	36,
Totals Imported	2,496,	3,489,	5,985,	3,885,	4,436,	8,321,	7,811,	2,440,	10,251,
Exported to:—									
ance .....	2,340,	94,	2,434,	2,198,	71,	2,269,	2,097,	68,	2,165,
se Towns, Holl. } Belg. ....	45,	7,	52,	404,	3,	407,	150,	556,	706,
gl., Spain, and } brltr. ....	126,	—	126,	58,	—	58,	52,	—	52,
and China (via } gypt) .....	2,511,	101,	2,612,	2,660,	74,	2,734,	2,299,	624,	2,923,
ish West Indies... } ted States .....	600,	3,423,	4,023,	34,	3,891,	3,925,	42,	2,059,	2,101,
	—	—	—	137,	1,	138,	7,	41,	48,
	1,	1,	2,	—	—	—	11,	—	11,
h Africa .....	2,	—	2,	—	—	—	60,	2,	62,
ritius .....	—	—	—	—	—	—	61,	15,	76,
il .....	71,	30,	101,	58,	29,	87,	69,	9,	78,
ther Countries...	23,	22,	45,	16,	2,	18,	2,	3,	5,
Totals Exported	3,208,	3,577,	6,785,	2,905,	3,997,	6,902,	2,551,	2,753,	5,304,
ss of Imports ....	—	—	—	980,	439,	1,419,	5,260,	—	4,947,
Exports ....	712,	88,	800,	—	—	—	—	313,	—

## REVENUE.—(UNITED KINGDOM.)—31ST MARCH, 1860-59-8-7.

*Net Produce in YEARS and QUARTERS ended 31ST MARCH, 1860-59-8-7.*

[Unit 000's omitted.]

QUARTERS, ended 31st March.	1860.	1859.	1860.		Corresponding Quarters.	
			Less.	More.	1858.	1857.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	5,551,	5,914,	364,	—	5,888,	5,244,
Excise .....	4,507,	3,187,	—	1,320,	3,251,	2,898,
Stamps .....	2,128,	2,061,	—	67,	2,052,	1,905,
Taxes .....	313,	312,	—	1,	308,	260,
Post Office .....	915,	830,	—	85,	705,	777,
	13,414,	12,304,	364,	1,473,	12,204,	11,084,
Property Tax .....	6,002,	2,483,	—	3,519,	3,390,	6,942,
	19,416,	14,787,	364,	4,992,	15,594,	18,026,
Crown Lands .....	75,	73,	—	2,	70,	67,
Miscellaneous .....	729,	340,	—	389,	346,	426,
<i>Totals</i> .....	20,220,	15,200,	364,	5,383,	16,010,	18,519,
			Net Increase £5,019,000			

YEARS, ended 31st March.	1860.	1859.	1860.		Corresponding Years.	
			Less.	More.	1858.	1857.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	24,461,	24,118,	—	343,	23,109,	23,322,
Excise .....	20,361,	17,902,	—	2,459,	17,825,	18,165,
Stamps.....	8,043,	8,006,	—	38,	7,416,	7,372,
Taxes .....	3,232,	3,162,	—	70,	3,152,	3,116,
Post Office .....	3,310,	3,200,	—	110,	2,920,	2,886,
	59,407,	56,388,	—	3,020,	54,422,	54,861,
Property Tax .....	9,596,	6,683,	—	2,912,	11,586,	16,090,
	69,003,	63,071,	—	5,932,	66,008,	70,951,
Crown Lands .....	284,	280,	—	4,	277,	285,
Miscellaneous .....	1,802,	2,126,	324,	—	1,597,	1,098,
<i>Totals</i> .....	71,089,	65,477,	324,	5,936,	67,882,	72,334,
			Net Increase £5,612,000			



REVENUE (UNITED KINGDOM).—QUARTER ENDED 31ST MARCH, 1860 :—  
APPLICATION.

*An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 31st March, 1860 ; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st December, 1859, viz.:—	£
Great Britain .....	—
Ireland .....	£720,591
	<u>720,591</u>
Income received in the Quarter ended 31st March, 1860, as shown on page 270.....	20,219,807
Amount received in the Quarter ended 31st March, 1860, in repayment of Advances for Public Works, &c. ....	267,571
	<u>£21,207,969</u>

Paid:—

Amount applied out of the Income for the Quarter ended 31st March, 1860, in Redemption of Exchequer Bills (Deficiency) for the Quarter ended 31st December, 1859, viz.:—	£
	2,971,501
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 31st March, 1860 .....	9,917,268
Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st December, 1860, viz.:—	
Interest of the Permanent Debt .....	£5,607,844
Terminable Debt .....	604,328
Interest of Exchequer Bills (Deficiency) .....	962
The Civil List .....	100,884
Other Charges on Consolidated Fund .....	373,662
Advances for Public Works, &c. ....	282,872
	<u>6,970,552</u>
Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st March, 1860, viz.:—	
Great Britain .....	324,756
Ireland .....	1,023,892
	<u>1,348,648</u>
	<u>£21,207,969</u>

CORN.—*Gazette Average Prices (ENGLAND AND WALES) First Quarter of 1860.*

[This Table is communicated by H. F. JADIS, ESQ., Comptroller of Corn Returns.]

Weeks ended on a Saturday, 1860.		Weekly Average. (Per Impl. Quarter)					
		Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January	7 .....	44 2	34 5	21 5	35 5	38 10	38 3
"	14 .....	43 11	34 7	21 5	30 4	39 -	36 7
"	21 .....	43 11	34 4	21 1	32 1	38 3	36 2
"	28 .....	43 10	34 7	21 5	28 11	38 5	36 3
Average for January ....		43 11	34 5	21 4	31 8	38 7	36 9
February	4 .....	43 8	34 10	21 -	31 -	38 1	35 4
"	11 .....	43 6	34 11	21 11	29 1	38 4	36 -
"	18 .....	43 11	34 11	21 11	31 10	38 6	36 3
"	25 .....	44 5	35 7	22 7	35 3	38 11	36 11
Average for February ..		43 10	35 -	21 10	31 11	38 5	36 1
March	3 .....	44 9	36 6	22 11	32 -	39 1	37 8
"	10 .....	45 -	36 3	22 9	30 5	39 6	37 3
"	17 .....	45 2	36 5	23 1	34 10	39 7	37 7
"	24 .....	45 6	36 11	23 4	32 -	39 3	37 7
"	31 .....	46 5	37 2	24 1	36 9	39 11	38 7
Average for March .....		45 4	36 7	23 2	33 2	39 5	37 8
Average for the Quarter ..		44 5	35 5	22 2	32 4	38 10	36 11

## RAILWAYS.—PRICES, Jan.—March,—and TRAFFIC Jan.—March, 1860.

Total Capital Ex- pended	Railway.	For the (£100). Price on			Miles Open.		Total Traffic First 13 Weeks. unit 000's omitted.		Traffic pr. Mile pr. Wk. 13 Weeks.		Dividends per Cent for Half Years.		
		1 Mr.	1 Feb.	2 Ja.	'60.	'59.	'60.	'59.	'60.	'59.	30 Dec. '59.	30 July '59.	30 "
£					No.	No.	£	£	£	£	s. d.	s. d.	s.
Mins.													
40,2	Lond. & N. Westn.	98	95 <sup>3</sup> / <sub>8</sub>	99	917	891	941,	875,	79	76	52 6	42 6	42
23,2	Great Western ....	69 <sup>1</sup> / <sub>4</sub>	64	70	465	465	362,	342,	60	56	35 -	20 -	25
12,0	Great Northern ....	108 <sup>1</sup> / <sub>2</sub>	103 <sup>1</sup> / <sub>2</sub>	107 <sup>1</sup> / <sub>2</sub>	283	283	313,	237,	85	64	70 -	33 9	61
17,8	Eastern Counties.	56 <sup>1</sup> / <sub>2</sub>	54	58 <sup>1</sup> / <sub>2</sub>	499	489	299,	294,	46	46	30 9	19 1	30
8,3	Brighton .....	111	112	111 <sup>1</sup> / <sub>2</sub>	223	202	155,	152,	53	58	70 -	50 -	70
13,3	South-Eastern ....	86 <sup>3</sup> / <sub>4</sub>	83 <sup>1</sup> / <sub>4</sub>	84 <sup>3</sup> / <sub>4</sub>	306	302	145,	139,	36	35	60 -	40 -	50
10,3	South-Western ....	92 <sup>1</sup> / <sub>4</sub>	93	98 <sup>1</sup> / <sub>4</sub>	337	337	183,	172,	42	39	52 6	42 6	57
125,1		89	86	89	3,030	2,969	2,398,	2,211,	57	53	53 11	35 5	48
20,6	Midland .....	109 <sup>3</sup> / <sub>4</sub>	106	110 <sup>1</sup> / <sub>4</sub>	614	614	511,	460,	64	57	60 -	42 6	55
18,4	Lancsh. and York.	99 <sup>1</sup> / <sub>2</sub>	97 <sup>1</sup> / <sub>2</sub>	100 <sup>1</sup> / <sub>4</sub>	395	395	430,	387,	83	75	50 -	45 -	40
8,9	Sheffield and Man.	41 <sup>1</sup> / <sub>2</sub>	37 <sup>3</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>4</sub>	173	173	142,	131,	63	58	10 -	4 -	-
22,6	North-Eastern ....	92 <sup>3</sup> / <sub>4</sub>	92	95 <sup>1</sup> / <sub>4</sub>	764	764	442,	415,	44	42	41 8	30 10	37
4,5	South Wales .....	69	72	74	171	171	85,	79,	38	36	27 6	22 6	25
75,0		82 <sup>1</sup> / <sub>2</sub>	81	84	2,117	2,117	1,610,	1,472,	58	54	37 10	28 11	39
8,5	Caledonian .....	90 <sup>3</sup> / <sub>4</sub>	92 <sup>1</sup> / <sub>2</sub>	95	198	198	—	—	—	—	50 -	37 6	40
4,6	Gt. S. & Wn. Irlnd.	113	114	114	236	229	86,	78,	28	25	50 -	50 -	50
213,2	Gen. aver. ....	88	87	90	5,581	5,513	4,094,	3,761,	55	51	47 2	34 3	44

Consols.—Money Prices 1st March. 94<sup>3</sup>/<sub>4</sub>,—1st Feb. 94<sup>1</sup>/<sub>8</sub>,—1st Jan. 95<sup>5</sup>/<sub>8</sub>.

Exchequer Bills.

,,

25s. pm., ,, 13s. pm., ,, 30s. pm.

BANK OF FRANCE.—*Abstract of Official Returns.—25 francs = £.*I.—LIABILITIES (*Passif*).

1 DATES.	2 3 4 Billets to Bearer. (Circulation.)			5 6 7 Billets to Order. (Bank Post Bills.)			8 9 10 11 Current Accounts. (Deposits.)				12 Other Liabili- ties.	13 Total. Liabili- ties.
	Paris.	Branch.	Total.	Paris.	Récépissés.	Total.	Trea- sury.	Paris.	Branch.	Total.		
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1860. n. 12....	—	—	29·93	·28	·28	·56	10·71	6·28	1·24	18·23	9·08	57·80
b. 9....	—	—	29·96	·19	·30	·49	9·55	5·87	1·52	16·94	8·86	56·25
ch. 8....	—	—	28·39	·24	·35	·59	8·83	7·14	1·50	17·47	8·88	55·33

II.—ASSETS (*Actif*).

14 DATES.	15 16 17 Coin and Bullion.			18 19 20 Portfolio. (Discounts.)			21 Ad- vances on Ingots.	22 Advances on Public Stocks.	23 Advances on Shares.	24 Other Assets.	25 Total Assets.
	Paris.	Branch.	Total.	Paris.	Branch.	Total.	Total.	Total.	Total.		
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1860. n. 12....	7·34	14·03	21·37	9·96	11·42	21·38	·03	1·76	3·40	9·86	57·80
b. 9....	6·93	14·66	21·59	10·06	10·62	20·68	·02	1·69	3·42	8·85	56·25
ch. 8....	7·06	14·72	21·78	9·51	10·03	19·54	·05	1·66	3·39	8·91	55·33

## BANKS in BOSTON, NEW YORK, PHILADELPHIA and NEW ORLEANS, 1859-60.

*Monthly Averages deduced from Weekly Official Returns. 85 = £.*

1859-60.	Boston.				New York.				Rates of Discount in New York on Prime endorsed, 60 d. Bills.  Pr.ct. pr.ann.
Averages of Months of	Liabilities.		Assets.		Liabilities.		Assets.		
	Circl.	Deps.	Loans.	Specie.	Circl.	Deps.	Loans.	Specie.	
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	
Dec. ....	1·32	3·71	11·93	·94	1·67	19·96	24·73	3·97	7 @ 7½
Jan. ....	1·29	3·55	11·96	·87	1·61	19·74	24·75	3·79	8½ „ 9
Feb. ....	1·26	3·53	11·53	·89	1·61	19·93	24·80	4·05	7 „ 7½

1859-60.	Philadelphia.				New Orleans.			
Dec. ....	·52	2·94	5·00	·91	2·16	3·81	5·11	2·36
Jan. ....	·53	2·98	5·07	·90	2·50	3·77	4·97	2·50
Feb. ....	·53	3·01	5·09	·93	2·68	3·89	4·98	2·56



## BANK OF ENGLAND.—WEEKLY RETURN.

*Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the FIRST QUARTER (Jan.—March) of 1860.*

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1859. Pr. ct. p. an.
30,29	Jan. 4 ....	11,02	3,46	15,82	30,82	16 July, 2½.
30,00	" 11 ...	11,02	3,46	15,53	21,83	
29,64	" 18 ...	11,02	3,46	15,17	22,05	
29,34	" 25 ...	11,02	3,46	14,87	21,62	1860.
28,75	Feb. 1 ....	11,02	3,46	14,28	21,90	19 Jan., 3.
28,80	" 8 ....	11,02	3,46	14,33	21,35	31 ,, 4.
28,86	" 15 ...	11,02	3,46	14,39	20,99	
28,93	" 22 ...	11,02	3,46	14,45	20,57	29 Mch. 4½.
28,95	" 29 ...	11,02	3,46	14,48	20,64	12 Apl. 5.
28,99	Mch. 7 ...	11,02	3,46	14,51	20,67	
29,05	" 14 ...	11,02	3,46	14,57	20,51	
29,06	" 21 ...	11,02	3,46	14,59	20,34	
29,06	" 28 ...	11,02	3,46	14,59	20,98	

## BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES. (Wdnsdys.)	Assets.				Totals of Liabili- ties and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
14,55	2,21	9,16	13,41	,79	Jan. 4	10,92	21,09	8,47	,65	41,13
14,55	3,25	5,56	15,54	,81	„ 11	10,96	19,89	8,17	,70	39,72
14,55	3,28	5,17	14,85	,87	„ 18	10,81	19,59	7,59	,72	38,71
14,55	3,30	5,53	14,08	,86	„ 25	10,41	19,50	7,72	,69	38,32
14,55	3,32	5,21	14,48	,78	Feb. 1	10,17	20,77	6,85	,66	38,46
14,55	3,42	6,30	14,30	,75	„ 8	10,17	21,06	7,45	,65	39,33
14,55	3,44	6,83	14,29	,73	„ 15	10,17	21,08	7,87	,72	39,84
14,55	3,44	7,28	14,19	,71	„ 22	10,17	20,94	8,36	,70	40,17
14,55	3,68	7,61	13,79	,70	„ 29	10,17	21,16	8,31	,69	40,34
14,55	3,72	8,34	12,84	,70	Mch. 7	10,17	20,95	8,32	,71	40,15
14,55	3,73	9,27	13,03	,72	„ 14	10,22	21,82	8,54	,73	41,31
14,55	3,74	10,36	12,93	,72	„ 21	10,22	22,58	8,72	,79	42,31
14,55	3,76	10,38	13,56	,69	„ 28	10,22	23,96	8,08	,68	42,94

## CIRCULATION.—COUNTRY BANKS.

*Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the FIRST QUARTER (Jan.—March) of 1860, and in the last Two Weeks of the FOURTH QUARTER (Oct.—Dec.) of 1859; and in SCOTLAND and IRELAND, at the Three Dates, as under.*

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 440)	Joint Stock Banks. (Fixed Issues, 330.)	TOTAL. (Fixed Issues, 770.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 275.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 635.)
1859.	Mlns. £	Mlns. £	Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
Dec. 24	3,41	2,97	6,38							
„ 31	3,44	2,97	6,41							
1860.										
Jan. 7	3,54	3,03	6,57							
„ 14	3,61	3,06	6,67	Jan. 14	1,60	2,68	4,28	3,47	3,89	7,36
„ 21	3,58	3,04	6,62							
„ 28	3,53	2,99	6,52							
Feb. 4	3,47	2,95	6,42							
„ 11	3,42	2,93	6,35	Feb. 11	1,59	2,53	4,12	3,48	3,87	7,35
„ 18	3,39	2,93	6,32							
„ 25	3,37	2,93	6,30							
Mch. 3	3,38	2,94	6,32							
„ 10	3,37	2,97	6,34	Mch. 10	1,55	2,45	4,00	3,45	3,75	7,20
„ 17	3,37	2,98	6,35							
„ 24	3,40	3,04	6,44							
„ 31	3,49	3,09	6,58							

FOREIGN EXCHANGES.—Quotations as under, London on Paris, Hamburg & Calcutta, —and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.
	London on Paris.	Bullion as arbitrated.		Prem or Dis on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
1860.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Jan. 7 ..	25.35	0.2	—	½ dis	13.5¼	0.3	—	110	26	25	57½	par	62
„ 21 ..	32	0.3	—	„	4¾	„	—	109¼	„	„ ⅛	„	„	„
Feb. 4 ..	32	0.4	—	„	5¼	0.2	—	108½	„	„ ½	„	„	„
„ 16 ..	40	0.2	—	„	5½	—	0.2	„	„	„	51	„	„
Mch. 3 ..	35	„	—	„	5½	—	0.1	109	„	26	57	„	„ ⅛
„ 24 ..	35	0.3	—	„	5	par	—	„	„	25½	„	1 p.	„
Apl. 7 ..	42	0.2	—	par	6	„	—	„	„	„	„	„	61¾





# QUARTERLY JOURNAL

OF THE

## STATISTICAL SOCIETY.

---

SEPTEMBER, 1860.

---

*The ADDRESS of the PRINCE CONSORT on opening as PRESIDENT the Fourth Session of the INTERNATIONAL STATISTICAL CONGRESS.*

THE Fourth Session of the International Statistical Congress, appointed at its third meeting at Vienna, in 1857, to be held in London, was opened by the Prince Consort, as President, on Monday, the 16th July, 1860, in the Great Hall of King's College, Somerset House. His Royal Highness delivered the following address on the occasion:—

Gentlemen,—The Statistical Congress of All Nations has been invited by the Government to hold its fourth meeting in this metropolis, in conformity with the wishes expressed by the late Congress held at Vienna in 1857.

Although under these circumstances it would have been more properly within the province of a member of the Government and Minister of the Crown to fill this chair and open the proceedings of the day, as has been the case in previous meetings of the Congress in other places, the nature of the institutions and the habits of the people of the country in which this assembly was to take place, could not fail to make itself felt and to influence its organization. We are a people possessing and enjoying the most intense political life, in which every question of interest or importance to the nation is publicly canvassed and debated. The whole nation, as it were, from the highest to the lowest, takes an active part in these debates, and arrives at a judgment on the collective result of the thoughts and opinions thus called forth. This Congress could, therefore, only be either a private meeting of the delegates of different Governments, discussing special questions of interest in the midst of the general bustle of political activity, or it had to assume a public and a national character, addressing itself to the public at large, and inviting its co-operation.

The Government have chosen the latter alternative, and have been met by the readiest response from all sides. They have, I think, wisely chosen; for it is of the utmost importance to the object the Congress has in view, namely, not only the diffusion of Statistical information, but also the acquisition of a general acknowledgment of the usefulness and importance of this branch of human knowledge,—that the public, as a whole, should take up the questions which are intended to be investigated, and should lend its powerful aid. Gentlemen, this explains, and must serve as my apology for my presuming to hold the post of your President, for which I otherwise feel full well my unworthiness.

When, however, the Commissioners for the organization of the Congress expressed to me their desire that I should do so, I felt it incumbent upon me not to withhold my individual co-operation, carrying with it, as it would, an assurance to the British people that the object of the meeting was one which had enlisted the sympathy of their Queen, and testifying to the Foreign Delegates the esteem in which she holds them personally, and her appreciation of the science which they serve. Let me now welcome them to this country, and welcome them on behalf of this country. It is here that the idea of an International Statistical Congress took its origin, when delegates and visitors from all nations had assembled to exhibit in noble rivalry the products of their science, skill, and industry in the Great Exhibition of 1851; it is here that Statistical Science was earliest developed; and Dr. Farr has well reminded us that England has been called, by no less an authority than Bernouilli, “the cradle of political arithmetic,” and that we may even appeal to our Domesday Book as one of the most ancient and complete monuments of the science in existence. It is this country also which will and must derive the greatest benefits from the achievements of this science, and which will, consequently, have most cause to be grateful to you for the result of your labours.

Gentlemen, old as your science is, and undeniable as are the benefits which it has rendered to mankind, it is yet little understood by the multitude; it is new in its acknowledged position among the other sciences, and still subject to many vulgar prejudices. It is little understood, for it is dry and unpalatable to the general public in its simple arithmetical expressions, representing living facts (which as such are capable of arousing the liveliest sympathy) in dry figures and tables for comparison. Much labour is required to wade through endless columns of figures, much patience to master them, and some skill to draw any definite and safe conclusions from the mass of material which they present to the student; while the value of the information offered depends exactly upon its bulk, increasing in proportion with its quantity and comprehensiveness. It has been



little understood also from the peculiar and often unjustifiable use which has been made of it; for the very fact of its difficulty and the patience required in reading up and verifying the statistical figures which may be referred to by an author in support of his theories and opinions, protect him, to a certain extent, from scrutiny, and tempt him to draw largely upon so convenient and available a capital.

The public generally, therefore, connect in their minds Statistics, if not with unwelcome taxation (for which they naturally form an important basis), certainly with political controversies, in which they are in the habit of seeing public men making use of the most opposite statistical results with equal assurance in support of the most opposite arguments. A great and distinguished French minister and statesman is even quoted as having boasted of the invention of what he is said to have called "*l'art de grouper les chiffres*;" but if the same ingenuity and enthusiasm which may have suggested to him this art should have tempted him or others, as historians, to group facts also, it would be no more reasonable to make the historical facts answerable for the use made of them, than it would be to make statistical science responsible for many an ingenious financial statement. Yet this science has suffered materially in public estimation by such use, although the very fact that statesmen, financiers, physicians, and naturalists seek to support their statements and doctrines by Statistics, shows conclusively that they all acknowledge them as the foundation of truth; and this ought, therefore, to raise, instead of depressing, the science in the general esteem of the public.

Statistical science is, as I have said, comparatively new in its position among the sciences in general, and we must look for the cause of this tardy recognition to the fact, that it has the appearance of an incomplete science, and of being rather a helpmate to other sciences than having a right to claim that title for itself. But this is an appearance only; for if pure Statistics, as a science, abstains from participating in the last and highest aim of all science, viz., the discovery and expounding the general laws which govern the Universe,—and leave this duty to its more favoured sisters, the natural and the political sciences, this is done with conscious self-abnegation, for the purpose of protecting the purity and simplicity of its sacred task—the accumulation and verification of facts, unbiassed by any consideration of the ulterior use which may or can be made of them. Those general laws, therefore, in the knowledge of which we recognize one of the highest treasures of man on earth, are often left unexpressed, though rendered self-apparent, as they may be read in the uncompromising rigid figures placed before him. It is difficult to see how, under such circumstances, and



notwithstanding this self-imposed abnegation, Statistical science, as such, should be subject to prejudice, reproach, and attack; and yet the fact cannot be denied. We hear it said that its prosecution leads necessarily to Pantheism and the destruction of true religion, as it deprives, in man's estimation, the Almighty of His power of free self-determination, making His world a mere machine, working according to a general pre-arranged scheme, the parts of which are capable of mathematical measurement, and the scheme itself of numerical expression; that it leads to fatalism, and therefore deprives man of his dignity, of his virtue and morality, as it would prove him to be a mere wheel in this machine, incapable of exercising a free choice of action, but predestined to fulfil a given task and to run a prescribed course, whether for good or for evil.

These are grave accusations, and would be terrible indeed if they were true. But are they true? Is the power of God destroyed or diminished by the discovery of the fact that the earth requires 365 revolutions upon its own axis to every revolution round the sun, giving us so many days to our year, and that the moon changes 13 times during that period, that the tide changes every six hours, that water boils at a temperature of 212 degrees Fahrenheit, that the nightingale sings only in April and May, that all birds lay eggs, that 105 boys are born to every 100 girls? Or is man a less free agent because it has been ascertained that a generation lasts about 40 years, that there are annually put in at the post-offices the same number of letters on which the writers had forgotten to place any address; that the number of crimes committed under the same local, national, and social conditions is constant; that the full-grown man ceases to find amusement in the sports of the child? But our statistical science does not even say that this must be so; it only states that it has been so, and leaves it to the naturalist or political economist to argue that it is probable, from the number of times in which it has been found to be so, that it will be so again as long as the same causes are operating. It thus gave birth to that part of mathematical science called the calculus of probabilities, and even established the theory that in the natural world there exist no certainties at all, but only probabilities. Although this doctrine, destroying man's feeling of security to a certain extent, has startled and troubled some, it is no less true that, while we may reckon with a thoughtless security on the sun rising to-morrow, this is only a probable event, the probability of which is capable of being expressed by a determined mathematical fraction. From the vast collection of existing statistical facts the probable duration of man's life has been established with such precision that our insurance offices are able to enter with each individual into a precise bargain on the value of his life; and yet this does not imply

an impious pretension to determine when this individual is really to die.

But we are met also by the most opposite objections, and Statistics are declared useless, because they cannot be relied on for the determination of any given cause, and do only establish probabilities where man requires and asks for certainty. This objection is well founded, but it does not affect the science itself, but solely the use which man has in vain tried to make of it, and for which it is not intended. It is the essence of statistical science that it only makes apparent general laws, but that these laws are inapplicable to any special case; that, therefore, which is proved to be the law in general is uncertain in the particular. Herein lies the real refutation also of the first objection, and thus are the power, wisdom, and goodness of the Creator manifested, showing how the Almighty has established the physical and moral world on unchangeable laws conformable to His eternal nature, while He has allowed to the individual the freest and fullest use of his faculties, vindicating at the same time the majesty of his laws by their remaining unaffected by individual self-determination.

Gentlemen, I am almost ashamed to speak such homely truths (of which I feel myself at best to be a very inadequate exponent) to a meeting like this, including men of such eminence in the science, and particularly in the presence of one who was your first President, M. Quételet, and from whom I had the privilege, now twenty-four years ago, to receive my first instruction in the higher branches of mathematics—one who has so successfully directed his great abilities to the application of the science to those social phenomena, the discovery of the governing laws of which can only be approached by the accumulation and reduction of Statistical facts. It is the social condition of mankind, as exhibited by those facts, which forms the chief object of the study and investigation undertaken by this Congress, and it hopes that the results of its labours will afford to the statesman and legislator a sure guide in his endeavours to promote social development and happiness.

The importance of these International Congresses in this respect cannot be overrated. They not only awaken public attention to the value of these pursuits, bring together men of all countries who devote their lives to them, and who are thus enabled to exchange their thoughts and varied experiences; but they pave the way to an agreement among different Governments and Nations to follow up these common inquiries, in a common spirit, by a common method, and for a common end. It is only in the largest number of observations that the law becomes apparent, and the truth becomes more and more to be relied upon, the larger the amount of facts accurately observed which form the basis of its elucidation. It is consequently of the highest importance that observations identical in character



should embrace the largest field of observation attainable. It is not sufficient, however, to collect the Statistical facts of one class over the greatest area and to the fullest amount, but we require, in order to arrive at sound conclusions as to the influences producing these facts, the simultaneous collection of the greatest variety of facts, the Statistics of the increase of population, of marriages, births and deaths, of emigration, disease, crime, education, and occupation, of the products of agriculture, mining, and manufacture, of the results of trade, commerce, and finance. Nor, while their comparison becomes an essential element in the investigation of our social condition, does it suffice to obtain these observations as a whole, but we require also, and particularly the comparison of these same classes of facts in different countries, under the varying influences of political and religious conditions, of occupation, races, and climates.

And even this comparison of the same facts in different localities does not give us all the necessary materials from which to draw our conclusions; for we require, as much as anything else, the collection of observations of the same classes of facts in the same localities and under the same conditions, but at different times. It is only the element of time, in the last instance, which enables us to test progress or regress—that is to say, life. Thus the physician, by feeling the pulse of the greatest number of persons coming under his observation, old and young, male and female, and at all seasons, arrives at the average number of the pulsations of the heart in man's normal condition; by feeling the pulse of the same person under the most varied circumstances and conditions, he arrives at a conclusion on this person's pulse; again, by feeling the pulse of the greatest variety of persons suffering from the same disease, he ascertains the general condition of the pulse under the influence of that disease; it is now only that, feeling a particular patient's pulse, he will be able to judge whether this person is afflicted by this peculiar disease, as far as that can be ascertained by its influence on the pulse.

But all these comparisons of the different classes of facts under different local conditions, and at different times, of which I have been speaking, depend, not only as to their usefulness and as to the ease with which they can be undertaken, but even as to the possibility of undertaking them at all, on the similarity, nay congruity, of the method employed, and the expressions, figures, and conditions selected under which the observations have been taken. Does not, then, the world at large owe the deepest obligations to a Congress such as the one I am addressing, which has made it its especial task to produce this assimilation, and to place at the command of man the accumulated experience upon his own condition, scientifically elabo-



rated and reduced in a manner to enable the meanest intellect to draw safe conclusions ?

Gentlemen, the Congress has at its various meetings succeeded in doing a great deal in this direction ; the official Statistics of all countries have been improved, and in regard to the census, the recommendations of the Brussels meeting have been generally carried out in a majority of States. I am sorry to have to admit the existence of some striking exceptions in England in this respect ; for instance, the census of Great Britain and Ireland was not taken on precisely the same plan in essential particulars, thereby diminishing its value for general purposes. The judicial statistics of England and Wales do not show a complete comparative view of the operation of our judicial establishments ; nor, while we are in all the departments of the State most actively engaged in the preparation of valuable Statistics, can we deny certain defects in our returns, which must be traced to the want of such a central authority or commission as was recommended by the Congress at Brussels and Paris, to direct on a general plan all the great Statistical operations to be prepared by the various departments. Such a commission would be most useful in preparing an annual digest of the Statistics of the United Kingdom, of our widely-scattered Colonies, and of our vast Indian Empire. From such a digest the most important results could not fail to be elicited. One of the most useful results of the labours of the Congress has been the common agreement of all States to inquire into the causes of every death, and to return the deaths from the same causes under synonymous names, sanctioned by the Congress. It has in this instance set the example of establishing what is most desirable in all other branches of Statistics—namely, the agreement upon well-defined terms. There ought to exist no greater difficulty in arriving at such an agreement in the case of the various crimes than in that of “ causes of death ;” and it must be remembered that it is one of the first tasks and duties of every science to start with a definition of terms. What is it that is meant by a house, a family, an adult, an educated or an uneducated person, by murder, manslaughter, and so on ? It is evident that as long as a different sense is attached to these terms in different returns their use for comparison is *nil*, and for simple study very much deteriorated ; and still we have not yet arrived at such a simple and obvious desideratum ! The different weights, measures, and currencies in which different Statistics are expressed cause further difficulties and impediments. Suggestions with regard to the removal of these have been made at former meetings, and will no doubt be renewed. We fancy here that our pound, as the largest available unit, with its florin, offers great advantages, particularly if further subdivided decimally. We hope to lay before you, as far as Great Britain is concerned, the Registrar-

General's analysis of the causes of death and the dangers that people encounter at each period of life ; complete returns of the produce of our mines ; the agricultural returns of Ireland, in which the Registrar-General of that country has given every year the breadth of land under every kind of crop, with an estimate of its produce, and has proved by his success in obtaining these facts at a comparatively moderate expense, and by the voluntary assistance of the landowners and cultivators, as well as of the clergy of all denominations, that the apprehension was groundless that it could not be done without inordinate cost or without injuring individual interests. We must hope that, considering its importance with regard to all questions affecting the food of the people, this inquiry will not only be extended to England and Scotland, but also to the Continent generally, wherever it may not already have been instituted. Our trade returns will exhibit the great effects produced on our commerce by the changes in our commercial system ; our colonial delegates will exhibit to you proofs of the wonderful progress of their countries, and proofs at the same time that elaborate Statistics have rendered them conscious of that progress. And I have no doubt that the foreign delegates will more than repay us by the information which they will give us in exchange.

These returns will, no doubt, prove to us afresh in figures what we know already from feeling and from experience—how dependent the different nations are upon each other for their progress, for their moral and material prosperity, and that the essential condition of their mutual happiness is the maintenance of peace and good-will among each other. Let them still be rivals, but rivals in the noble race of social improvement, in which, although it may be the lot of one to arrive first at the goal, yet all will equally share the prize, all feeling their own powers and strength increase in the healthy competition.

I should detain you longer than I feel justified in doing, and should perhaps trench upon the domain and duties of Presidents of Sections, if I were to allude to the points which will there be specially recommended to your attention and consideration ; but I trust that it will not be thought presumptuous in me if I exhort you generally not to lose yourselves in points of minute detail, however tempting and attractive they may be from their intrinsic interest and importance, but to direct your undivided energies to the establishment of those broad principles upon which the common action of different nations can be based, which common action must be effected if we are to make real progress. I know that this Congress can only suggest and recommend, and that it must ultimately rest with the different Governments to carry out those suggestions. Many previous recommendations, it is true, have been carried out, but many

have been left unattended to, and I will not except our own country from blame in this respect. Happy and proud indeed should I feel if this noble gathering should be enabled to lay the solid foundation of an edifice, necessarily slow of construction, and requiring for generations to come laborious and persevering exertion, intended as it is for the promotion of human happiness by leading to the discovery of those eternal laws upon which that universal happiness is dependent. May He who has implanted in our hearts a craving after the discovery of truth, and given us our reasoning faculties to the end that we should use them for this discovery, sanctify our efforts and bless them in their results.

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*The STATISTICS of the ENGLISH POOR RATE before and since the passing of the POOR LAW AMENDMENT ACT. By FREDERICK PURDY, Principal of the Statistical Department, Poor Law Board, London.*

[Read before the Statistical Society, May 15th, 1860.]

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I.—*Introductory.*

THE Poor Rate of England and Wales is the most important of the local taxes; whether we regard the amount of money raised, or the property and persons affected by it. During forty-seven years the sum levied has averaged 7,421,000*l.* It is now assessed, according to the latest account, upon a net annual value of 71,840,000*l.*; and, therefore, exacts the surrender of the *tenth* part of the rateable property of the country, yearly. The daily subsistence is, partially or wholly, provided by it for 800,000 to 1,000,000 of our fellow creatures. Besides the relief of the poor, the rate has defrayed, for many years, other charges of a local character, but which have no connection whatever with the object originally contemplated by the statute of Elizabeth. The term “Poor Rate” has become, to this extent, a misnomer.

Although the Poor Rate was imposed on its present basis in 1601 by the 43rd Elizabeth, cap. 2, it was only after an interval of 175 years, that any authentic account of the monies, levied and expended, was obtained. It is true that an attempt to ascertain these particulars, by actual inquiry, was made in 1750. In that year, says Mr. Rickman, a well considered order appeared on the journal of the House of Commons; but, he adds, that the returns made in obedience to it, were very defective; that they were deficient in number to the extent of one-tenth; and that he made an estimate to supply the place of the missing documents. It appears from the published account thus obtained, that the rate levied during the three years ended at Easter 1750, averaged 730,000*l.*, of which 690,000*l.* was expended for relief to the poor.\* I do not think the

\* Local Taxation, House of Commons paper, No. 562, 1839.

results obtained, under these circumstances, are sufficiently accurate for statistical purposes.

Mr. Thomas Gilbert who paid particular attention to the subject of Poor Laws, stated in the House of Commons in 1775, on moving for a Committee on Poor Laws, that there was “an immense sum” of money annually raised in this country for the relief and maintenance of the poor; a sum not inferior, perhaps superior, to that raised by the land tax at 4*s.* in the pound, which is two millions “per annum.”\* In the House of Lords in the same year, Lord Lyttleton said, “There is above three millions of money annually raised in this country for the support of the poor.”† It was ascertained subsequently, that the amount raised in the year ended at Easter, 1776, was only 1,720,317*l.*; and that the sum expended in relief was 1,529,789*l.*; amounts which show, that the lowest of the two estimates, was considerably in excess of the truth.

## II.—*Parliamentary Inquiries.*

It will be gathered from the following statement that, since the middle of the last century, the subjects of pauperism and poor laws, have engaged the attention of the legislature with increasing frequency; and that the scarcity and high price of provisions, matters of direct and permanent influence on pauperism, were also subjects of frequent and anxious inquiry at the latter part of the last, and the commencement of the present century.

Select Committees of the House of Commons (or Lords) reported:—

In 1750—On the Poor Laws, and on Assessments in 1748, '49, and '50.

In 1774—On the methods practised in making Flour from Wheat, and on the Prices thereof, &c.

In 1775—(Two reports) on the several laws which concern the Relief and Settlement of the Poor in England.

In 1776—(Two reports) on the Orders of last Session respecting the Poor; and how far they had been complied with.

In 1777—On the Return made by the Overseers of the Poor for the year 1776.

In 1778—On the state of the parish Poor Children in London.

In 1783—On the Act of the 21st year of George III.; and on their instructions “to consider so much of his Majesty’s gracious Speech to both Houses of Parliament as relates to the Scarcity and high Price of Corn.”

In 1787—On the Returns made by the Overseers relative to the state of the Poor; and also by Ministers and Churchwardens relative to Charitable Donations for the benefit of Poor Persons. (Appendix containing the Poor Rate Returns of 1784-5-6.)

In 1788—On the aforesaid Returns from Ministers and Churchwardens relative to Charitable Donations.

In 1795—On the means of promoting the Cultivation of the Waste Lands of the kingdom.

\* Hansard, vol. xviii, pp. 543.

† Ibid, pp. 628

- In 1795—(Two reports) on the high Price of Corn.  
 In 1796—(Three reports) „ „  
 In 1797—On the means of promoting the Cultivation of the Waste Lands of the kingdom.  
 In 1800—On the means of promoting the Cultivation of Waste Lands in the kingdom.  
 „ (Two reports) on the Acts for regulating the Assize and making of Bread, and on the deficiency of the last Crop of Grain.  
 In 1800-1—(Six reports) on the high Prices of Provisions.  
 „ On the high Price of provisions. (Report from the Lords' Committee)  
 In 1802—On the Corn Trade between Great Britain and Ireland.  
 In 1804—On the Returns made pursuant to 43rd George III, relative to the Expense and Maintenance of the Poor in England. (Returns of 1803.)  
 In 1812-3—On the provisions which have been introduced into Local Acts for Building Houses for the Poor; the better Collection of Rates, Management and Relief of the Poor, in any Parishes or Districts.  
 In 1814-5—On Parish Apprentices.  
 In 1815—On the Poor Rate Returns obtained under 55th George III, c. 42. (Years 1813, '14, and '15.)  
 In 1816—On the Poor Laws.  
 In 1817— „  
 In 1818—(Two reports) „  
 „ On the Poor Law. (Lords' Committee)  
 In 1819— „  
 In 1821— „  
 In 1822— „  
 In 1823—On the poor rate return of 1822-3.  
 In 1824—On Labourers' Wages; as to payment of out of the Poor Rates; and what measures can be carried into execution for the purpose of altering that practice.  
 „ On the Poor Rate Return of 1823-4.  
 In 1825— „ „ 1824.  
 In 1826-7— „ „ 1824 and '25.  
 In 1825—The annual Poor Rate Return only.  
 In 1826— „ „  
 „ Comparative statement only of the Poor Rate.  
 „ Poor Rate Returns of 1776, '85, 1803, and '15.  
 „ Return only, of the amount levied on Land, Mills, Factories, Manorial Profits, &c.  
 In 1826-7—Poor Rate Returns of 1801, '11, and '21.  
 In 1827—Annual Poor Rate Return only.  
 In 1828— „ „  
 „ On the Employment, or Relief of Able-bodied Persons, from the Poor Rates.  
 „ On the Law of Parochial Settlement.  
 „ On Irish and Scotch Removals.  
 In 1829—Annual Poor Rate Return only.  
 In 1830— „ „  
 „ Accounts only, relating to the Poor. Comparative Tables of Poor Rates at certain intervals from 1776 to 1823.  
 In 1831—Annual Poor Rate Return only.  
 „ On the state of the Poor Laws. (Committee of the Lords).  
 In 1832—Annual Poor Rate Return only.  
 In 1833— „ „  
 „ On Irish Removals.  
 In 1834—Annual Poor Rate Return only.



It will be seen from the list given above, that the first attempt to inquire into the operation of the 43rd Elizabeth, was made by the House of Commons in 1750, exactly 150 years after the passing of that Act; and that up to 1834 poor laws, pauperism, and the high prices of provisions, were constantly engaging the attention of the legislature, for in that period Committees reported—

*Twenty times* on the high price of provisions, the scarcity of grain, and the cultivation of waste lands;

*Forty-four times* on the poor and the poor laws;

inclusive of the annual return of poor rates, levied and expended, from 1813 to 1834.

In 1832 a Commission was appointed by the Crown to make a diligent and full inquiry into the practical operation of the laws for the Relief of the Poor in England and Wales; the Commissioners made their report to his late Majesty in the month of February, 1834. Their recommendations were, for the most part, embodied in the Poor Law Amendment Act (4 and 5 William IV, c. 76).

In the autumn of 1834, three Commissioners were appointed to administer the Act, who, under the style of the "Poor Law Commissioners for England and Wales," held office up to 1848. At that time, or rather in December, 1847, a change was made in the constitution of the central authority by the 10 and 11 Vict., c. 109. The Commission then took, and has retained to the present day, the title of "Poor Law Board," to distinguish itself from its predecessor.

### III.—*Poor Rate Levy.*

The data employed throughout this paper, are obtained exclusively from official publications. The authority for the figures used are either given in the foot notes, or in a list of references in the Appendix; where the reader will find a ready clue to minuter information on the subject of poor rates.

The amount levied in England and Wales in the year ended at Easter, 1776, was 1,720,317*l.*;—the average rate raised in the next period, *i.e.*, the three years ended at Easter, 1785, was 2,167,760*l.*, which shows that the annual levy had increased 26·0 *per cent.* in eight years;—in 1803 the rate rose to 5,348,205*l.*, or 144·8 *per cent.* in nineteen years. Ten years subsequently, that is in 1813, it was 8,646,841*l.*,—a further increase of 61·7 *per cent.*, having occurred in that interval.

From 1813 to 1859, the tables give the sums levied for each of the forty-seven consecutive years (Tables I. and III. Appendix). During the five years, 1814 to 1818, the rate fluctuated considerably; in the latter year it rose to its highest point, namely, 9,320,440*l.*, which was *more than four times* the sum levied thirty-four years previously. From 1819 to 1824, the rate fell continuously

till it arrived in the latter year to 6,836,505*l.*, or 26·7 per cent. below the maximum rate of 1818; the rate then rose steadily, through the following eight years, till in 1832 it attained to the sum of 8,622,920*l.*; six years, from 1833 to 1838, of falling rates followed; the amount having sank in 1838 to 5,186,389*l.*, which is the lowest levy in the present century: and a decrease of 44·4 per cent. compared with the levy of 1818. The next ten years were years of increasing rates; the amount rose in 1848 to 7,817,430*l.*; then for five years the rates decreased, the sum raised in 1853 was 6,522,412*l.* The six concluding years of the series exhibit increasing rates. The average was 7,912,470*l.*; this falls below the *maximum* year, 1818, by 15·1 per cent. only, and it exceeds the *minimum* year, 1838, by 52·6 per cent. The total amount levied during forty-seven years, that is, from 1813 to 1859, was 348,799,029*l.*; the annual average 7,421,256*l.*

For the purpose of tracing the yearly fluctuations in the Poor Rate levy, a table is given in the Appendix, which exhibits the absolute and the relative difference in the amounts in each year, as compared with its predecessor (Table II).

The pressure of the rate is conveniently measured through the medium of the estimated population of the respective periods returned. With this view the Table III (Appendix) has been prepared; it exhibits the rate *per head*, on the population, of the Poor Rate levied, and of the money spent in relief to the poor, annually.

The most prominent facts of the Table in regard to the levy, may be briefly detailed. In 1776 a tax of 4*s.* 6 $\frac{3}{4}$ *d.* per head on the population, would have yielded the rate; in 1803, 11*s.* 6 $\frac{1}{4}$ *d.*; 1813, 16*s.* 2 $\frac{1}{4}$ *d.* per head; in 1818, the year of *maximum* rate (absolute) 16*s.* 1 $\frac{1}{4}$ *d.*; in 1834, the year immediately preceding the initiation of the amended law, 11*s.* 7 $\frac{1}{4}$ *d.* per head; in 1838, the year of *minimum* rate, 6*s.* 10 $\frac{1}{4}$ *d.*; and in the last year of the series, 1859, 8*s.* 3 $\frac{1}{2}$ *d.* per head.

The relation of some of these ratios, *inter se*, is exhibited by the next table.

Parochial Year.	Circumstance.	Rate per Head Levied.	Difference per Head.			
			More.		Less.	
		<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>		<i>s.</i> <i>d.</i>	
1776....	1st Authentic return .....	4 6 $\frac{3}{4}$	—		—	
1803....	1st Return in the present century .....	11 6 $\frac{1}{4}$	6 11 $\frac{1}{2}$		—	
1813....	1st Return of the consecutive series ....	16 2 $\frac{1}{4}$	11 7 $\frac{1}{2}$		—	
1818....	<i>Maximum</i> rate .....	16 1 $\frac{1}{4}$	11 6 $\frac{1}{2}$		—	
1838....	<i>Minimum</i> rate .....	6 10 $\frac{1}{4}$	—		9 3	
1859....	The last year returned .....	8 3 $\frac{1}{2}$	—		7 9 $\frac{3}{4}$	



The items of "Receipts in Aid of Poor Rates," given in the second column of Table I, are analyzed and exhibited in the synopsis printed in the Appendix. The principal item, since 1847, has been the repayment to the guardians of the poor, by her Majesty's Treasurer, in respect of the salaries of the medical officers, and of the schoolmasters and schoolmistresses. The sums yearly repaid are exhibited in Table IV. (Appendix). In accordance with the annual vote of the House of Commons, half the medical officers' salaries and the whole of the schoolmasters' and schoolmistresses' salaries are repayable to the guardians upon certain conditions, which are all but universally accepted.

#### IV.—*Valuations to the Poor Rate.*

Having considered the Poor Rate levy, it will be convenient at this point to call attention to the subject of the Poor Rate Valuations. I propose to do this briefly, as the subject is a wide and important one, and could only be treated at length, and in the manner it demands, in a separate paper.

The description of property liable to the rate, is given in detail in Mr. Coode's Report on Local Taxation, up to 1843; but it is necessary to consult Mr. Lumley's practical commentary upon the "Law of Parochial Assessments" for a complete view of the subject at the present day. Valuable information upon the subject of parochial assessments, will also be found in the Report of the Lords' Committee of 1850; and in the Select Committee of the House of Commons on "Rating of Mines," in 1856 and '57.

The table in the Appendix shows the annual value of property rateable to the Poor Rate in the years 1841, '47, '50, and '56 respectively. For these years only has the information been obtained. An important addition was made to the return of 1856 by the introduction, for the first time, of the "gross estimated rental" (Table V).

It is satisfactory to observe that the net or rateable annual value has increased, according to this statement, 9,300,241*l.*, or 14·9 per cent. in the fifteen years which elapsed between the earliest and latest return.

The rate in the pound levied in 1841 was 2*s.* 0·4*d.*; in 1847, 2*s.* 0·8*d.*; 1850, 2*s.* 1·8*d.*, and in 1856, 2*s.* 3·4*d.* The Poor Rate in 1856 represented a tax of 11·4 per cent. on the rateable value. On the "gross estimated rental" it was 1*s.* 10·9*d.* in the pound, or 9·5 per cent. In the latter year the "rateable value" was 16·5 per cent. lower than the "gross estimated rental."

From the capricious manner in which the rateable value is arrived at in different parishes, it is known to be worthless as a means of estimating the pressure of the rates in one district as compared



with another. In this difficulty a more accurate standard has been sought in the "gross estimated rental." But, can that be relied on? The value of property assessed to the Property Tax under Schedule A, has been occasionally employed in parliamentary papers, for comparing the relative amounts of poor rate in different parishes. Is this a better standard than the gross estimated rental? Both questions demand an answer, as they evidently affect all existing estimates.

Let a comparison be made of the ends proposed, and the means employed, for imperial and for local taxation.

1st. As to the discovery of the annual value of real property for *imperial* purposes.

The Crown is served by paid officers, intelligent, vigilant, and directly responsible to local and central authorities. It is the duty of the assessors to ascertain, to the *utmost*, the value of the taxable property, quite irrespective of the sum it will yield to the exchequer.

2nd. As to the discovery of the annual value of property rateable to the Poor Rate, that is, for *local* purposes.

The Parish is served by overseers, whose appointment is compulsory and unpaid; they are not generally distinguished for their intelligence. In making an assessment, their responsibility is not so immediate as that of the Crown assessors. The amount of the valuation is comparatively indifferent to them, so far as the Poor Rate is concerned; and in respect of the county rate, their interest and frequent practice is, to evade their just contributions by keeping the valuation down. For example, if a parish were legally and accurately valued to the utmost, say at 1,000*l.*, and the overseers had to raise 50*l.*, then a shilling rate would suffice; but if it were valued 100*l.* short of its proper value, then the 50*l.* would be as easily raised by a *thirteen pence halfpenny* rate. The parochial valuation is simply the scale for distributing a charge among the ratepayers; if it be *uniformly* lower than its full amount, the ratepayers suffer no injustice, *inter se*; but other parishes in the same county, which are fairly valued, are injured by contributing out of their due proportion to the county rate.

A valuable exposition of the forms and the present practice of rating by the overseers, is given by Mr. George Coode, in his "Report on Local Taxation." Mr. Coode says that—

"The tendency to under-rate the value of property is always great. Every person liable to the tax has more reasonable ground to expect success in the attempt to escape from a portion of the tax himself than in the attempt to increase directly the portion to be contributed by others, and all the efforts of the ratepayers are accordingly directed to the reducing of the rates in their own cases; on their side the officers imposing the tax seek to conciliate the whole mass of taxpayers, and especially such individuals amongst them as threaten litigation, by lowering the portion of each.

“ Thus, whatever may have been at any time, according to law, the standard of rateable value, there is no doubt that the assessed value was always considerably below it; but since the year 1739 there has been a peculiar motive for reducing the valuation to the poor’s rate, and, through the connection in practice of all the rates with the poor’s rate, to reduce the valuation of property to the whole of our local taxes. From that time the county rate began to be assessed on parishes in proportion to the total value of the rateable property in each parish respectively. So far as this principle of assessment was carried out, to that extent was an obvious motive given to every parish to adopt a contrivance by which, while the proportions between the several contributors to the poor’s rate within the parish should be undisturbed, the proportion of the whole parish, as compared with all other parishes in the county, should be as much as possible diminished. This object was, in appearance, easily to be attained. The value of all the property in the parish was estimated in some of the ways before described, and then the whole was reduced by some common proportion. About the middle of the last century, the value in the rate was usually admitted to be but a half of the true value, but was in reality even much less than that; inasmuch as the original estimate of the value was always much below the truth. The admitted value, whatever that was, was invariably reduced in making the rate in some proportion which varied from one-third to three-fourths.\* Those parishes which adopted the lowest proportion, of course evaded the county rate to the greatest extent; but as all the parishes gradually adopted the practice in a greater or less degree, none of them succeeded to the full extent of the factitious reduction of their value.

“ It is true that for a long period after 1739 the county rate was not generally, nor even in a majority of counties, assessed upon parishes in proportion to their respective aggregate valuations. Still the practice of parishes under-valuing their property, gained ground everywhere; perhaps because it was always known to be in the power of the justices at quarter sessions at any time to begin to charge the parishes to the county rate, according to their respective assessments to the poor’s rate. At length, in 1815, the motive was extended to all parishes and places within counties, the 55 George III, c. 51, expressly prescribing the valuation to the poor’s rate as a basis in ordinary cases for the assessment to the county rate. But though the motive to under value their property was thus obviously strengthened, its operation was also checked by the same Act which gave the justices power, where discontented with the poor’s rate valuation, to make a searching inquiry into its correctness, and in certain cases to appoint and pay valuers. From that time to the passing of the Parochial Assessments Act, the 19th of August, 1836, the practice of under-valuing the entire parish seems, on the whole, not to have either increased or decreased.

“ The Parochial Assessments Act has only partially reformed this practice. The valuations ordered to be made under the Act, up to the 1st of October, 1842, extend only to 4,444 parishes and townships out of 15,635. Of these only a part, though by far the largest part, have been made by paid professional valuers. Even in these instances many of the best and most scrupulous valuers admit, that for the sake of avoiding dissatisfaction and appeals, and of anticipating future depreciations of property, they have kept their valuations 10, 15, or even 20 per cent. below what the amount would be upon a strict estimate. In the rest of the 4,444 parishes or townships in which any valuations have been made, the overseers, or sometimes a committee of the ratepayers have professed, and sometimes really attempted, a revaluation: but we regret to say that these latter valuations have

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\* “ These proportions ran universally through the rate, and must not be confounded with those different proportions adopted for different kinds of property within the same parish, as three-fourths for land, one moiety for houses, and a twentieth part of the annual interest for personalty; proportions adopted, as has been before described, to compensate for those varying burdens upon different classes of property which made the rack rent an unsuitable standard of value. This practice originated at a much earlier time than the one we are now describing.”



not in any instance appeared to us to be satisfactory, and in some cases they have been more objectionable than the valuations before acted on. In the remaining 11,190 parishes and townships of England and Wales, no new valuations have been made under the Act.”\*

To a similar effect, I will here quote a passage from the Report of a Committee of Magistrates of the county of Bucks, who re-valued the property of that shire to the county rate last year. According to the new valuation, the rateable property had *apparently* increased 140,000*l.*, or  $18\frac{1}{2}$  per cent. in fourteen years.

“Your Committee in thus presenting to the Court such an approximation to a fair and equal county rate, as heretofore has not been arrived at, take leave further to state that they have been much assisted in this arduous undertaking by the property tax assessments, as no reliance can be placed on the poor rate assessments, which, with very few exceptions, are not made in conformity with the Parochial Assessments Act.”†

Now the sum returned as assessed to the property tax under Schedule A., in England and Wales, in the financial year 1856, was 101,938,175*l.*; the “gross estimated rental,” according to the rate books in the same year was, as we have already seen, 86,077,676*l.* Here is a difference of 16 millions very nearly, between the two amounts. Whence arises this great disparity?

The causes of the inequality are apparently six:—

1st. The more exact assessments by the Crown officers.

2nd. Certain properties like metal and stone mines (under given conditions), timber, fines on renewal of leases, and some other descriptions of property chargeable under Schedule A, are exempt from poor’s rate.

3rd. The different mode of assessing railways, gas works, canals, and waterworks, for Crown and for local purposes.

4th. Certain public buildings are assessed to the property tax, but not to the poor rate.

5th. The direct interest which the overseers have in keeping down the “gross estimated rental,” so as to lighten their county rate contributions; and

6th. Many parishes in the rural districts make no distinction between “gross” and “rateable value.”

What deduction is to be made in respect of the second, third, and fourth heads from the property tax assessment, to bring it to a

\* Page 50, *et seq.* “Report on Local Taxation,” 8vo., edition 1844. Prepared by Mr. George Goode for the Poor Law Commissioners.

† I was informed by a gentleman who was one of the committee of the justices of the peace for the county of Bucks, that, in making a new assessment for the county rate, they found many instances where land which had been a long time under tillage, was described in the rate books as “beech woods.” For some interesting particulars of this re-assessment, see the printed report of the committee, dated County Hall, Aylesbury, 17th October, 1859.



quantity properly comparable with the "gross estimated rental," there are at present, so far as I am aware, no means of ascertaining. The large sum in Schedule A under "Railways," may be responsible for a considerable part of the discrepancy. In 1852 it was 6,442,000*l.*; the sum then apportioned in respect of railways for poor relief, was only 204,871*l.*;\* equivalent to a rateable value of 2,041,871*l.* or thereabouts. Hence the poor rate valuation (rateable value) of railways, was less than *one-third* of the property tax assessment.

But the danger of employing these valuations for the purpose of comparison, without possessing further information than the printed returns afford, becomes more manifest when we descend to particular localities. Here is a list of several places selected from the parliamentary papers just published, which throws, if the expression may be permitted, considerable *obscurity* upon the subject.

*Assessment of Real Property under Schedule A in 1857, and Gross Estimated Rental of the Poor Rate Books in 1856.*

(a) The two valuations agreeing very nearly :—			£
Bucks.....	(Rural part) ...	Property Tax .....	667,410
		Poor Rate .....	664,803
Bolton .....	(Parl. borough)	Property Tax .....	179,363
		Poor Rate .....	178,882
Great Yarmouth	(Parl. borough)	Property Tax .....	88,048
		Poor Rate .....	88,701
(b) The Property Tax assessment <i>higher</i> than the gross estimated rental :—			
Bury .....	(Parl. borough)	Property Tax .....	251,409
		Poor Rate .....	112,884
Chester .....	(City).....	Property Tax .....	253,156
		Poor Rate .....	80,688
(c) The Property Tax assessment <i>lower</i> than the gross estimated rental :—			
Essex .....	(Rural part) ...	Property Tax .....	1,915,551
		Poor Rate .....	2,022,003
Hertford .....	(Rural part) ...	Property Tax .....	839,084
		Poor Rate .....	871,259
Leominster.....	(Parl. borough)	Property Tax .....	19,168
		Poor Rate .....	26,895

As an extreme instance of divergence in the two valuations, take St. Marylebone (borough). According to the paper No. 124 "Poor Rates," House of Commons, 1860, the gross estimated rental in 1856 was 2,442,611*l.*; in 1857, the valuation to the property tax (Schedule A), was 5,917,069*l.* [No. 121, "Population," H. of C.,

\* House of Commons, No. 996. Local Rates, Sess. 1853. I have employed the rateable value here, because the amount of the "gross estimated rental" was not then known.

1859]. But it appears on reference to another paper [No. 254, "Assessments," H. of C., 1855,] that the property tax valuation *without railways* in that year, 1854-5, was only 2,610,968*l.* Five years after, the "gross estimated rental" was 168,000*l.* less than that sum.

Many of these local discrepancies in the returns, but not all, can be explained by the practice of the Crown officers, in accordance with the Act, ascribing all the value of railways, canals, gasworks, water works, &c., not to the respective parishes in which these properties may be situated, but to the parish where the dividends of the proprietors are paid. On the other hand, property rateable to the poor must be locally situated in the particular parish requiring the rate.

The preposition "in," as employed in these returns, implies a very different relation to its noun, expressed or understood, when used in connection with the property tax figures; and when employed with respect to poor rate valuations.

The rate of increase in the two assessments appears to differ greatly; but the means of comparison are not quite so accurate as could be desired. However, this point seems worth considering; for it is questionable whether there should not be a closer approximation of the two ratios, after allowing for the difference in the elements of the comparison, than the result exhibits.

Thus the *increase* in the "rateable value" of the parochial valuation in fifteen years (1841-56), was only 14·9 per cent.

But the *increase* in the assessment value of real property in fifteen years (1843-58), was 28·2 per cent.\*

There is also to be noticed a great difference between assessments to the tax, and to the rate, in the rural as compared with the urban districts of the kingdom. This difference, doubtless ascribable to the local peculiarities of the respective valuations, is shown by the next table.

Purposes of the Assessment.	Rural, <i>i.e.</i> Counties <i>minus</i> Represented Cities and Boroughs.	Urban, <i>i.e.</i> Represented Cities and Boroughs.	Total of England and Wales.
	£	£	£
Property tax under Schedule A (1857) .....	60,501,167	42,995,086	103,496,253
Poor rate, gross estimated rental (1856) .....	54,762,081	31,315,595	86,077,676
Poor rate lower than property tax assessment by .....	9·5 per cent.	27·2 per cent.	16·8 per cent.

\* *Vide* No. 310, House of Lords, 1853; and No. 263 *ibid.*, 1858.

Beyond these diversities, there are some discrepancies to be explained in the overseers' returns for certain places, as indicated by the subjoined table.

City or Borough.*	Rateable Value of Property Assessed to the Poor Rate.		Difference in Four Years.
	1852.	1856.	
	£	£	£
City of London .....	963,790	986,472	+ 22,682
„ Westminster .....	1,795,748	1,907,836	+ 112,088
Marylebone .....	1,930,217	2,160,417	+ 230,200
Finsbury .....	1,160,150	1,291,274	+ 131,124
Tower Hamlets .....	1,419,553	1,597,795	+ 178,242
Southwark .....	516,660	536,290	+ 19,630
Lambeth .....	909,023	854,781	— 54,242
Greenwich .....	319,469	320,282	+ 813
Totals .....	9,014,610	9,655,147	+ 640,537 or 7·1 per cent. increase.

Is it a fact that in *four* years the borough of Marylebone *increased* in its annual rateable value 230,200*l.*, while the borough of Lambeth decreased 54,242*l.*? At all events, this is the answer the returns give, when they are collated. Have profits, which were paid in Lambeth in 1854, migrated to Marylebone, or elsewhere? Or is it indeed a fact that property has so greatly fallen in value in the former place? The answer cannot be extracted from the returns.

It really does not appear possible to obtain reliable data, so far as the rate books are the authority; and, there is even reason to surmise, that the Crown, with all its vigilance, may fail in obtaining the extreme value. There appears to be one practicable, though troublesome mode of reaching it; and that is, by the willing concurrence of three separate functionaries in the search. The overseer, with his rate-book; the property tax assessor, with his detailed assessment; and a professional agent, familiar with the parish concerned, and possessing full knowledge of the market value of all its reality. If a combination like this will not, under skilful inquisition, reveal the truth, it is difficult to say how it can be reached.

In connection with this part of the subject, it will be of interest to consider the number of assessments in the rate, for the kingdom, and the number of ratepayers. But, unfortunately, the official records have been hitherto scanty and incomplete. The only paper that purports to give the total number of ratings and ratepayers

\* No. 254, "Assessments" (Metropolis) House of Commons, 1855.  
 „ 124, "Poor Rates" „ 1860.



is one moved for by Mr. Poulett Scrope.\* It relates to the parochial year 1851.

*England and Wales (RATEABLE VALUE), 1850-1.*

Gross Number of Persons Assessed.	Number of Assessments in the Rate.	Number of Assessments in Rate			Total.
		To	Under £5.	At £5 and Above.	
2,788,701	3,408,332	{ Occupiers.	1,066,252	1,511,234	2,577,486
		{ Owners ....	617,271	213,575	830,846
			1,683,523	1,724,809	3,408,332

If this can be relied on as a full return for the kingdom, there appears to have been one ratepayer in every 6·4 of the population. It should be borne in mind, however, that *one* person would figure as *several* ratepayers, should he be rated for properties in several parishes. The total number of assessments in the rate was 3,408,332 ; of this number 1,683,523, or nearly *half*, were under 5*l.* each. More than *one-third* of the assessments under 5*l.* were made on the owners. Taking the total number of ratings, *one-fourth* was made in respect of the owners, instead of the occupiers. The compositions which the overseers are empowered to make with owners of small houses, either under the Small Tenements Rating Act or by virtue of local Acts, tend greatly to increase the number of ratings at the lower values.

By the aid of two recent parliamentary returns, the number of male occupiers in the urban districts (the parliamentary boroughs and represented cities) rated at 5*l.* and upwards can be given to the present date. The figures in these returns fall short of completeness, (1) by the exclusion of females, (2) and by the exclusion of all occupiers rated below 5*l.* How large is the proportion which this class bears to the whole, has just been shown. The occupiers are returned both according to the "gross estimated rental" and the "rateable value." The number of male occupiers rated to the "gross estimated rental" is 946,675 ; to the "net rateable value," 782,520 ; the latter, therefore, are 17·4 per cent. below the former quantity. The rateable *value* in these districts falls below the gross estimated rental by 17·8 per cent. To illustrate some of the anomalies of rating, three places have been selected,—the Tower Hamlets, as the most populous ; Plymouth (borough), as the lowest ; and Shrewsbury (borough) as the highest rated in the returns. In the Tower Hamlets, the occupiers at the "rateable value" are 16·5

\* No. 2, House of Commons, "Poor Rate Assessments," &c., 1852.

per cent. below those at the gross rental; in Plymouth they are below it by 1·7; and in Shrewsbury by 7·4 per cent. only. In respect of valuation, the deductions from the gross rental are 10·6 per cent. *above* the average in the Tower Hamlets; but in Plymouth they are *double* the average; and in Shrewsbury they are but *one-fourth* of it. The range is, therefore, from 1 to 8.

I wish to direct the attention in the next table, to the words, “under 5*l.*,” “not returned;” if the official tables had been completed by the insertion of the particulars below their present 5*l.* limit, it is probable that more trustworthy information would have been obtained; or that, at least, we should have been in a better position to investigate the question.

	Scale of Ratings at	Number of Male Occupiers according to		(b) Lower than (a) <i>Pr. Cent.</i>	VALUA- TION. — Rateable below Gross. <i>Per Cent.</i>	Range of Per Cent.
		Gross Estimated Rental. (a)	Rateable Value. (b)			
England and Wales .	{ £5 and over under £5	946,675 not ret	782,520 urned	17·4 —	{ 17·8	average
Tower Hamlets .....	{ £5 and over under £5	74,780 not ret	62,476 urned	16·5 —	{ 28·4	—
Plymouth .....	{ £5 and over under £5	3,589 not ret	3,528 urned	1·7 —	{ 34·9	highest
Shrewsbury .....	{ £5 and over under £5	3,238 not ret	2,998 urned	7·4 —	{ 4·2	lowest

#### V.—*Expenditure for the Relief of the Poor.*

Before investigating the alarming increase in pauperism, which, as indicated by the rise in the money value of relief, the close of the last and the commencement of the present century witnessed, I will, by permission of the Meeting, read a succinct account of the general law in regard to the administration of relief between 1601 and 1834.

The statement alluded to was drawn up by Mr. Twisleton, in 1843, who, at that time, was one of the Assistant Poor Law Commissioners.

“The whole of the period,” writes Mr. Twisleton, “may be conveniently divided into three epochs:—

*Note.*—The number of persons rated in the counties of England and Wales, exclusive of represented cities and towns, according to Mr. Newdegate’s Return, No. 506, Sess. 1854, was at that date 525,465 at 10*l.* and upwards. The return does not say “rateable value,” but, there can be little doubt, that is meant.



"1st. From 1601 (when the 43rd of Elizabeth was passed) to 1722, being a period of 121 years, during which the law required, in every parish, certain parties called churchwardens and overseers, with the consent of justices of the peace, not only to raise money for the relief of the impotent, but likewise to raise a convenient stock of flax, hemp, wool, thread, iron, and other necessary ware and stuff, to set to work poor persons who had no means to maintain them, without giving the power of purchasing or hiring workhouses.

"2ndly. From 1722, when Sir Edward Knatchbull's Act was passed (the 9th George I, c. 7), to 1795, being a period of seventy-three years, during which the churchwardens and overseers of a parish, with the consent of the majority of the inhabitants, might purchase or hire a workhouse or workhouses, in which they might keep, maintain, and employ all poor persons; and persons refusing to be kept and maintained in them were declared to be not entitled to relief.

"3rdly. From 1795, when Sir William Young's Act was passed (the 36th George III, c. 23), to 1834, being a period of thirty-nine years, during which justices of the peace had power to order relief to poor persons at their own houses."\*

A fourth period must now be added, embracing the twenty-five years of amended administration; therefore,

"4thly. From 1834, when the Poor Law Amendment Act was passed (4 and 5 William IV, c. 76) to the present time.

It should be premised that the word "pauperism" is, in this paper, occasionally used as synonymous with the money value of relief. Strictly speaking, it designates the condition of dependence on the poor rate. The amount of relief generally measures, but not always, the amount of pauperism; and there are no trustworthy records of the number of paupers before 1834. From necessity, therefore, the amount of relief is here taken as the measure of pauperism. The number of paupers on the rate, from time to time, is an inquiry of far greater importance to us, morally and socially, than that of the mere fiscal burden of relief.

In respect of the first epoch there are no authentic returns.

In the second epoch there are two returns of one and three years respectively.

In the third epoch there are twenty-three, and in the fourth twenty-five annual returns. (Table VIII, Appendix).

In 1776 the amount expended in relief was 1,529,780*l.*;† of this sum 80,279*l.* was for "rent of workhouses and habitations of the poor." In 1783-4 the relief had risen to 2,004,238*l.* (the mean of the three years), or 31 per cent. in eight years. Ten years afterwards, Sir William Young's Act was passed. The preamble, after reciting that of the Act of 1722, proceeds in these words:—

"And whereas the said provision contained in the Act above-mentioned has been found to have been and to be inconvenient and

\* Ninth Annual Report of Poor Law Commissioners, pp. 90 *et seq.*

† In connection with this amount, there is a column in the abstract with this agreeable heading, "Medium Expenses of Entertainments at Meetings relative to the Poor;" 11,713*l.* was the annual average, in those days, for parochial festivities.



“oppressive, inasmuch as it often prevents an industrious poor person from receiving such occasional relief as is best suited to the peculiar case of such poor persons, and inasmuch as in certain cases it held out conditions of relief injurious to the comfort and domestic situation and happiness of such poor person.” These amiable sentiments, enforced by an Act of Parliament, in due season produced their frightful, but natural, effects.

This Act was passed five years after a committee of the House of Commons had reported in these words, namely, that “your committee, in order to apprise the House of the rapid increase of the expenses in maintaining the poor, have introduced a column in the abstract, showing what the expenses were in 1776.” By this comparison the committee found “that the medium annual increase of expenses (relief to the poor) in nine years, commencing at Easter, 1776, and ending at Easter, 1785, amounts to 474,458*l.* 5*s.* 10*d.*”\*

Further, the committee reported “That they have great hopes some plan will be formed, when these returns have been considered, for the future care and more economical regulations of the poor, which may considerably reduce the general expenses of the poor, specified in the ninth column of the abstract.” That is, the column which gives the amount of relief.†

In the third epoch, there are twenty-two annual returns, the first was made in 1803, the others commencing with 1813 and terminating with the period. By 1803, the amount had risen to 4,077,891*l.*; this was an increase of 2,073,653*l.* as compared with 1785, or 103·5 per cent., after an interval of eighteen years. A considerable rise in the price of wheat had also taken place; in the former period it was 46*s.* 6½*d.* per quarter, and in the latter 64*s.* 8*d.*; but other causes must have been in operation besides the dearness of bread to have increased pauperism. Did not the evil grow in this terrible manner under the fostering care of Sir William Young’s Act?

Mr. Twisleton, in a very interesting report on the management of the poor in places under local Acts, from which a quotation has just been made, says:—

“It remains to treat of the period of thirty-nine years, between 1795 and 1834, when it was lawful for overseers to give, and justices of the peace had power to order overseers to give, relief to industrious poor persons at their own homes.

“On the fatal effects of this demoralizing state of the law it is unnecessary to dilate, inasmuch as they are matters of general notoriety, and in particular, they are minutely and graphically delineated in the Report of the Commissioners of Inquiry of 1834. It is sufficient for the present purpose to point out, that subsequently to 1795 the English Poor Law respecting able-bodied persons appears to

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\* Committee on certain returns on the “State of the Poor,” &c., House of Commons, reported 23rd May, 1787.

† Ibid.

have included all the main defects which it is desirable to avoid in a Poor Law for that class. There was a vicious organization of the body which was to distribute relief; the relief was to be distributed on a vicious principle; and the organization of the power for controlling the distributors of relief was, in reference to this particular branch of its duties, likewise vicious. It required, perhaps, the combination of all these defects to produce the mass of abuses which afterwards came into existence.

The next year in the statistical history of the rate is 1813. It is noteworthy as the commencement of the series, which has published to the country, the yearly sums raised and disbursed from that time to the present. It was then found that the relief had risen to 6,656,106*l.*; hence, in ten years it had increased 63·2 per cent. Sir William Young's Act had been in operation eighteen years, but there is no return for 1794-5, or we could measure its effects with greater certainty. Compared with the average of 1783-4-5, the increase was 4,651,868*l.*, or 232 per cent., in one generation. The price of wheat had reached the highest point recorded in the poor rate returns, namely, 125*s.* 6*d.* per quarter.

At this point it will be convenient to illustrate the pressure of pauperism in more detail, by showing the rate *per head* of money expended for relief in 1813, on the population of 1811, in the separate counties.\*

	<i>s.</i>	<i>d.</i>		<i>s.</i>	<i>d.</i>
Sussex .....	32	—	Somerset .....	12	—
Berks .....	26	—	Worcester.....	12	—
Essex .....	24	—	Devon .....	11	—
Oxford .....	23	—	Gloucester .....	11	—
Wilts.....	23	—	Lincoln.....	11	—
Buckingham.....	22	—	Salop .....	11	—
Norfolk.....	19	—	Chester.....	10	—
Northampton .....	19	—	Derby .....	10	—
Suffolk .....	19	—	Middlesex .....	10	—
Southampton .....	18	—	Nottingham .....	10	—
Bedford.....	17	—	East York.....	10	—
Dorset .....	17	—	West York .....	10	—
Hereford .....	17	—	Cornwall .....	9	—
Cambridge .....	16	—	Durham .....	9	—
Huntingdon .....	16	—	Monmouth .....	9	—
Kent .....	16	—	Westmorland .....	9	—
Leicester .....	14	—	North York .....	9	—
Hertford .....	13	—	Northumberland .....	8	—
Rutland .....	13	—	North Wales.....	8	—
Surrey .....	13	—	Stafford.....	8	—
Warwick .....	13	—	Cumberland .....	7	—
			Lancaster ....	7	—
			South Wales.....	6	6

\* No. 556, Report from Select Committee on Poor Rate Returns, 1822.



It is obvious, that the evil, in its most malignant form prevailed, in the south-eastern, south-midland, eastern, and south-western divisions of England. The average rate per head for England was 13s. Fifteen counties, falling within the divisions named, ranged from 32s. to 16s. per head. The lowest part of the scale contains the remote counties in the north, the north-west, west, and south-west. Wales then stood among the least pauperized counties.

I have also introduced in this place a table for the purpose of exhibiting the comparative rise between 1776, 1785, 1803, and 1813, in the relief, the law charges and the expenses of removals, and in the other purposes.

YEARS, Compared.	Rate of Increase in Expenditure of			
	Relief to the Poor.	Law Charges, Removals, &c.	Other Purposes.	Total Expenditure.
	Mlms. £	Mlms. £	Mlms. £	Mlms. £
1776 .....	1·53	0·04	·14	1·69
1785 .....	2·00	0·08	·19	2·27
1795 .....	Sir William Young's Act (no return)			
1803 .....	4·08	0·19	1·03	5·30
1813 .....	6·66	0·32	1·86	8·84

In the two following years the amount fell considerably; in 1814 it was 361,525*l.*, and in 1815, 1,237,260*l.* lower than 1813. The price of wheat had also fallen to 108*s.* 9*d.* and 73*s.* 11*d.* respectively. Relief seems to have recoiled in those years, but to gain strength for a loftier bound, in the three that followed. The amount rose rapidly; the highest point was attained in 1818, when the relief stood at 7,870,801*l.*, or 33·4 per cent. over 1813.

The country then had then before it unquestioned evidence, that relief had risen 414 per cent. in 42 years. From 1819 to 1824 relief declined continuously; the amount had sunk in the latter year to 5,736,900*l.*; but thence, until 1830, it rose again, having attained, at the end of the term, to 6,829,042*l.* The relief remained at this level, with slight oscillations, until the Poor Law Amendment Act came into operation in 1834; or very near the middle of the parochial year 1835.

The parochial years 1831 and 1832 are memorable for the rick burnings and "Swing" fires in the agricultural districts; what the condition of the labouring population in those districts was, may be fully understood by perusal of the evidence collected by the Commissioners appointed to inquire into the practice and operation of the laws for relief of the poor, in England and Wales.

The Commissioners commenced their inquiries in August, 1832,



and laid their report, with the collected evidence, before his late Majesty, in February, 1834.

How mournful it is now to reflect, when, by the aid of that evidence, we fully realize the fearful degradation into which a very large portion of the population was sinking, that, seventeen years previously,—this warning voice was not heeded. I quote the words of the Select Committee of the House of Commons which reported on the poor laws in 1817.

“ This new and important principle of compulsory provision for the impotent and for setting to work the able, originated, without doubt, in motives of the purest humanity, and was directed to the equitable purpose of preventing this burthen falling exclusively upon the charitable. But such a compulsory contribution for the indigent, from the funds originally accumulated from the labour and industry of others, could not fail, in process of time, with the increase of population which it was calculated to foster, to produce the unfortunate effect of abating those exertions on the part of the labouring classes, on which, according to the nature of things the happiness and welfare of mankind has been made to rest. By diminishing this natural impulse by which men are instigated to industry and good conduct, by superseding the necessity in providing in the season of health and vigour for the wants of sickness and old age, and by making poverty and misery the foundations upon which relief is to be obtained, your Committee cannot but fear, from a reference to the increased numbers of the poor and increased and increasing amount of the sums raised for their relief, that this system is perpetually encouraging and increasing the amount of misery it was designed to alleviate, creating at the same time an unlimited demand on funds which it cannot augment; and as every system of relief founded on compulsory enactments must be divested of the character of benevolence, so it is without beneficial effects; as it proceeds from no impulse of charity, it creates no feeling of gratitude, and not unfrequently engenders dispositions and habits calculated to separate rather than unite the interests of the higher and lower orders of the community; even the obligation of natural affection are no longer left to their own impulse, but the mutual support of the nearest relations has been actually enjoined by a positive law, which the authority of magistrates is continually required to enforce. The progress of these evils, which are inherent in the system itself, appears to have been favoured by the circumstances of modern times, by an extension of the law in practice, and by some deviations from its most important provisions.

“ How much of the complaints which have been referred to your Committee may be attributable to one cause or the other, it is perhaps not easy to ascertain. The result, however, appears to have been highly prejudicial to the moral habits and consequent habits of a great body of the people who have been reduced to the degradation of a dependence upon parochial support; while the rest of the community, including the most industrious class, has been oppressed by a weight of contribution taken from those very means which would otherwise have been applied more beneficially to the supply of employment. And, as the funds which each person can expend in labour are limited, in proportion as the poor rate diminishes those funds, in the same proportion will the wages of labour be reduced, to the immediate and direct prejudice of the labouring classes; the system thus producing the very necessity which it is created to relieve.”

I cannot place before the Society a more compendious expression of the effects of a perverted poor law which, five and twenty years ago, was spreading its malignant influence through the fairest parts of this island, than by quoting the words of Mr. Edwin Chadwick's valuable and memorable report upon the subject.

“ It appears to me that the inferences to be drawn from the large body of evidence which I have now stated, and from the much larger body which I shall state in my final report, are these :—

“ 1. That the existing system of poor laws in England is destructive to the industry, forethought, and honesty of the labourers ; to the wealth and the morality of the employers of labour, and of the owners of property ; and to the mutual good-will and happiness of all. That it collects and chains down the labourers in masses, without any reference to the demand for their labour, that, while it increases their numbers, it impairs the means by which the fund for their subsistence is to be reproduced, and impairs the motives for using those means which it suffers to exist ; and that every day these evils are becoming more overwhelming in magnitude, and less susceptible of cure.

“ 2. That of these evils, that which consists merely in the amount of the rates, an evil great when considered by itself, but trifling when compared with the moral effects which I am deploring, might be much diminished by the combination of workhouses, and by substituting a rigid administration and contract management for the existing scenes of neglect, extravagance, jobbing, and fraud.

“ 3. That, by an alteration, or even according to the suggestion of many witnesses, an abolition, of the law of settlement, a great part, or, according to the latter suggestion, the whole of the enormous sums now spent in litigation and removals might be saved ; the labourers might be distributed according to the demand for labour ; the immigration from Ireland of labourers of inferior habits be checked, and the oppression and cruelty, to which the unmarried labourers, and those who have acquired any property, are now subjected, might, according to the extent of the alteration, be diminished, or utterly put an end to.

“ 4. That, if no relief were allowed to be given to the able-bodied, or to their families, except in return for adequate labour, or in a well-regulated workhouse, the worst of the existing sources of evil, the allowance system, would immediately disappear ; a broad line would be drawn between the independent labourers and the paupers ; the number of paupers would be immediately diminished, in consequence of the reluctance to accept relief on such terms ; and would be still further diminished in consequence of the increased fund for the payment of wages occasioned by the diminution of rates, and would ultimately, instead of forming a constantly-increasing proportion of our whole population, become a small, well-defined part of it, capable of being provided for at an expense less than one-half of the present poor rates.

“ 5. That the proposed changes would tend powerfully to promote providence and forethought, not only in the daily concerns of life, but in the most important of all points—marriage.

“ And lastly, that it is essential to the working of every one of these improvements, that the administration of the poor laws should be entrusted, as to their general superintendence, to one Central authority with extensive powers, and as to their details, to paid officers, acting under the consciousness of constant superintendence and strict responsibility.”\*

Such were the evils.

The remedial measures recommended by his Majesty's Commissioners were mainly embodied in the Poor Law Amendment Act, which received the royal assent on the 14th August, 1834, (4 and 5 William IV, c. 76.)

The administration of the new poor law was entrusted to three Commissioners, appointed in conformity with section 1 of the Act, who, under the style and title of Poor Law Commissioners for

\* Mr. Chadwick's "Report on London and Berkshire, 1833," published in 1837 with other evidence upon the Poor Laws of England.



England and Wales were sworn into office and commenced their very responsible duties in August, 1834.

The operations of the Commissioners commenced, in many respects, under favourable circumstances; the price of wheat was much lower than it had been during the preceding six years, and the demand for labour in the manufacturing districts was considerable. In three years 13,153 parishes, that is, about  $\frac{1}{4}$ ths of the country had been placed in union, but not without strenuous opposition to the new measures in some districts. Indeed, the outcry raised by the opponents of the reformed law was sufficiently strong to induce the House of Commons to grant a Select Committee, to inquire into the administration of relief to the poor, under the orders and regulations of the Commissioners, who, after a lengthened inquiry, reported favourably of their proceedings. The Commissioners, in their third annual report, which was addressed to Lord John Russell, as Secretary of State for the Home Department, alluding to the number of parishes which they had succeeded in placing under the amended law, state, "That this progress has been in the face of considerable  
" resistance, and under the pressure of very difficult circumstances,  
" is well known to your lordship, to whom, through the whole course  
" of our difficulties, we are indebted for such steady and undeviating  
" support, that we trust it is not unbecoming in us, or at variance  
" with the strict line of our duty, to take this opportunity of grate-  
" fully acknowledging it."

To resume the consideration of the expenditure. The parochial year 1835 could only be partially, and that not very directly, influenced by the new law, which did not come into operation till the middle of that year. But the average price of wheat had fallen to 44s. 2d., and the relief had also diminished by 790,837l. This year, for the reason given, cannot be properly employed in testing the fiscal results of the new measure. The years 1836, '37, and '38, however, give an unimpeachable standard of comparison. In the three years ended with Lady-day, 1834, the average sum spent in relief was 6,715,008l.; this, then, was the figure at which relief had stood for three clear years previous to the 4 and 5 William IV, c. 76; in the three years ended with Lady-day, 1838, the relief averaged 4,295,325l.; the average saving was 2,419,683l., or 36 per cent. In the year 1837 the relief sank to its lowest point in the present century, namely 4,044,741l.; it is the *minimum* year. The price of wheat, as shown by the Table, was much lower in the latter than in the previous triennium. The pressure of pauperism was thus alleviated throughout the country, but the degree of alleviation differed, as may well be imagined, in various counties.

The next table shows the expenditure for relief in each county for 1834 and for 1837, and the rate per head on the population



in each of those years, according to the census of 1831. I have selected 1837 because the machinery of the reformed administration had then had sufficient time to act efficiently, through the boards of guardians, upon the pauperism of the country (Table X, Appendix).

That the reduction in the amount of relief was the natural result of a return to wholesome principles of administration is made evident by the fact, that the most pauperized counties exhibited the greatest saving. This is the plain teaching of the table.

In Sussex the rate per head fell from 18s. 1d. to 8s. 7d.; in Bedford, from 16s. 4d., to 8s.; in Bucks, from 16s. 11d. to 8s. 8d.; in Northampton, from 15s. 8d. to 8s. 3d.; in Suffolk, from 16s. 7d. to 9s. 3d.; in Kent, from 14s. 3d. to 7s. 9d.; in Oxford, from 15s. 10d. to 8s. 9d.; in Hants, from 12s. 11d. to 6s. 2d.; in Norfolk, from 15s. 9d. to 8s. 3d.; in Berks, from 13s. 9d. to 7s. 9d. On the other hand, the fall in the manufacturing and less pauperized counties was comparatively light; thus, in Lancashire the rate per head fell from 3s. 9d. to 2s. 9d.; in Chester, from 5s. 6d. to 4s. 1d.; in Durham, from 6s. 3d. to 4s. 9d.; Monmouth, 5s. 8d. to 4s.; in Northumberland, 6s. 6d. to 5s. 4d.; West York, from 5s. 2d. to 3s. 8d.; in Stafford, from 5s. 10d. to 4s. 1d. The average result for England and Wales was a decline from 9s. 1d. to 5s. 10d. per head. The absolute decrease in the amount expended in relief in the same two years was, as shown by the table, 36 per cent.

In the next table, the counties are arranged according to the measure of alleviation which they experienced under the amended law (Table XI, Appendix).

Having now arrived at the year of *minimum* relief, it will be instructive to place the results in juxtaposition with those of 1813, the *initial* year of the unbroken series. A quarter of a century divides the first from the last term. This comparison is made in the following table, where the counties are arranged according to the pressure of their pauperism in 1813 (Table XII, Appendix).

What the condition of a deeply pauperized English county was in 1813, may be partially conceived when we peruse the *third* column of the table. Sussex stood highest in 1813, its rate per head was 32s., in 1837, 9s.; Berks, in 1813, 26s., in 1837, 8s.; Essex, in 1813, 24s., in 1837, 9s.; Oxford, in 1813, 23s., in 1837, 9s.; Wilts, in 1813, 23s., in 1837, 9s.; Bucks, in 1813, 22s., in 1837, 9s.; Norfolk, in 1813, 19s., in 1837, 9s.; Northampton, in 1813, 19s., in 1837, 8s.; Suffolk, in 1813, 19s., in 1837, 9s.; Hants, in 1813, 18s., in 1837, 8s.; Bedford, in 1813, 17s., in 1837, 8s.; Dorset, in 1813, 17s., in 1837, 7s.; Hereford, in 1813, 17s., in 1837, 7s.; Cambridge, in 1813, 16s., in 1837, 9s.; Hunts, in 1813, 16s., 1837, 8s. 1d.; Kent, in 1813, 16s., 1837, 8s. These were the changes in sixteen English counties, in which pauperism had formerly developed its most prolific

evils. The average result for England and Wales is this—the rate per head in 1813 was 13s., in 1837, 6s.; equal to a decrease of 54 per cent.

The table reveals also this noteworthy fact. The inequality between the counties was far greater in 1813 than in 1837. In the first year the rate per head begins at 32s. (Sussex) and descends to 6s. 6d. (South Wales). But in 1837 the highest rate is 9s. and the lowest 3s. The extremes in the first period are 5 and 1, in the latter 3 and 1. The new law operated to keep the idle and worthless off the rates; relief flowed back to its legitimate channels, and would have, as we have seen, a greater tendency to equality than before. The country, generally, was placed under fixed rules and orders, which, for the most part, were steadily adhered to by the local authorities. The Poor Law Commissioners had, by the end of the summer of 1838, succeeded in forming 13,427 parishes into unions, under the provisions of the Poor Law Amendment Act; those parishes comprised about five-sixths of the population.

The relief rose during each of the six following years; it arrived, in 1843, at the sum of 5,208,027*l.*, as shown in Table IX, being an increase over the *minimum* year (1837) of 1,163,286*l.*, or 28·8 per cent. Wheat had also risen greatly; in 1837 it was 52s. 6d. per quarter, but the respective prices of the six succeeding years were 55s. 3d., 69s. 4d., 68s. 6d., 65s. 3d., 64s., and 54s. 4d. The general state of the labouring population under the trials of those years is described in the Poor Law Commissioners' Annual Reports. Soon after 1836-7 the greater part of the counties of Stafford, Notts, and Leicester were placed in union; but the guardians had hardly commenced the administration of relief in those counties when "the interruption of the American trade produced a cessation in the demand for labour, more sudden in its approach, and more extensive in its operation than has been known on any former occasion."\*

The following winter (1837-8) was unusually long and severe, and the consequent pressure on the agricultural labourers was heavy. In Kent and Sussex the suffering was aggravated by the unfavourable state of the hop trade.† The depth of distress in particular localities is accurately gauged by the increase in relief. Thus, in the parochial year 1838 compared with that of 1837,—in Lancaster the increase per cent. in *money* measure was 19 per cent.; in Leicester, 19; Notts, 18; West York, 12; Dorset, 9; Warwick, 9; and in Wilts, 8. The total increase for England and Wales was, however, only 1·9 per cent.

In 1838-9 great difficulties were experienced in the administra-

\* Third Report of Poor Law Commissioners, p. 10.

† Fourth Report of Poor Law Commissioners, p. 26.



tion of relief in consequent of the scarcity of food. Bread, meat, and flour had, on the average, increased  $18\frac{1}{2}$  per cent. The county increases in that year were principally these,—Dorset, 20; Somerset, 20; Sussex, 18; Worcester, 16; Cambridge, 15; Kent, 15; Wilts, 14; Monmouth, 14; Suffolk, 12; Bucks, 12; Wales, 12; Durham, 10; Hants, 10; and Oxford, 10 per cent., as compared with the amount of relief two years previously.\*

With reference to 1839-40, the Commissioners observe that, “In the manufacturing districts, and especially of those of the midland parts of England, there has been continued and severe distress amongst the manufacturing population.” Then, the next winter, that of 1840-1, was another long and severe one. Regarding 1841-2 the Commissioners remark that, “In the manufacturing districts, . . . and particularly in the cotton districts of Lancashire and Cheshire, the distress of the operatives has been severe and extensive.”† The distress in the cotton districts appears to have been less severe towards the end of 1843; but, according to Ninth Report of the Poor Law Commissioners, it appears that, “whilst the state of the cotton manufacturing districts has been gradually improving, the distress in the woollen, and particularly the iron, districts, has been augmented since the date of our last annual report.”‡

The three succeeding years were more cheerful. Relief fell in amount, and wheat in price. The former, in 1846, was 4,954,204*l.*, that is, 253,823*l.*, or 4·9 per cent., lower than in 1843.

The years 1847 and 1848 are distinguished by the great and sudden rise in relief; exceeding, in these respects, any increase which has taken place since 1834. The average rise of the two years was 785,561*l.*; 1847 was 7·0 per cent., and 1848, 24·9 per cent. higher, than 1846. Wheat had risen to 59*s.* and 64*s.* 6*d.* per quarter. The Irish famine, which was contemporaneous with the severe distress in this country, is too terrible and too recent to be forgotten; nor need the Society to be reminded of the repeal of the corn laws, which is referrible to the same period.

During five years following relief declined, so that in 1852-3, the amount was 1,241,700*l.* less than in 1847-8, or a decrease of 20 per cent. in that period. Free trade had given wheat to the country at 49*s.* 1*d.*, 42*s.* 7*d.*, 39*s.* 11*d.*, 39*s.* 4*d.*, and 42*s.* per quarter, in respect of those years. Higher prices of food, brought, as a consequence, higher expenditure in relief. During the next three years, 1855-6, relief had risen to 6,004,244*l.*, or, by an increase of 21·5 per cent. A fall of 9*s.* 11*d.* per quarter in wheat in 1857 turned the scale again; and the series is completed with three years of declining pauperism. The most marked feature of this term is the very large

\* Fifth Report of Poor Law Commissioners, p. 11.

† Eighth Report, p. 7.

‡ Ninth Report, p. 1.



reduction of the expenditure in the agricultural districts of England. The distress of a second "American" crisis, and the monetary constriction of 1857 was confined entirely to the northern and midland manufacturing counties. And, although the number of paupers on the relief lists in March, 1858, had risen to 1,000,000 and odd; yet, in consequence of the sound condition of the other parts of the kingdom, the total relief showed a decrease of 125,000*l.* compared with 1855-6. The last year returned is 1858-9, with a decrease of 319,853*l.*, or 5·4 per cent., compared with its predecessor; wheat being 65*s.* 3*d.*, 53*s.* 10*d.*, and 42*s.* 9*d.* in this, the concluding period of the whole series.

An inspection of Table XIII will clearly demonstrate that, which at the *present* day few, perhaps, will be rash enough to dispute,—distress, as measured in the money value of relief to the poor, follows the price of wheat in its risings, and in its fallings. It may, therefore, be confidently affirmed, that whatsoever subordinate causes of pauperism may exist, like negligent or corrupt administration of relief, commercial and manufacturing distress, sudden and capricious changes of fashion, severity of the seasons, and stoppage of outdoor employment, or the prevalence of epidemic disease, the high price of food, especially wheat, is the paramount cause which drives the thriftless labourer to the poor rate for succour.

#### VI.—*Fiscal results of the Amended Law.*

The preceding tables have shown that since the Poor Law Amendment Act came into operation, the sum annually expended for "relief to the poor" has greatly decreased. It is now proposed to show, further, that in relation to the population and wealth of the country, this expenditure is a diminishing ratio.

##### Firstly. *As to the absolute decrease.*

The Poor Law Amendment Act came into operation in the autumn of 1834. During the twenty-two years preceding it, that is, from 1813 to 1834, the aggregate sum expended for relief was 143,110,817*l.*; which is equivalent to an annual average disbursement of 6,505,037*l.* In the twenty-five subsequent years, that is, from 1835 to 1859, the aggregate sum was 129,226,833*l.*, or an annual average of 5,169,073*l.* Hence, during a quarter of a century there has been an average *decrease* of 1,335,964*l.*, or 21 per cent. annually. The total sum saved in the twenty-five years has been 33,399,100*l.*

This saving has been effected notwithstanding two heavy items which have been paid out of the rate, and charged to the "relief of the poor" since 1834, charges of similar character and magnitude not having been incurred before that year. These items are the cost of the new union workhouses, and the salaries of the paid union

officers. These disbursements have not averaged less than 800,000*l.* a year—200,000*l.* a year for the former, and 600,000*l.* for the latter, or a total amount of 20,000,000*l.* during the twenty-five years of reformed administration.

The diminution of the law charges, and of the expenses of the removal of paupers since 1834, has been a marked feature of the new law. In two years, 1833 and 1834, these expenses averaged 256,508*l.*; in the four following years the average was 148,973*l.* In subsequent years these items declined still more, and according to the latest return, that is in 1857, the amount was only 80,733*l.*,\* or *less than one-third* of the average expenditure of 1833 and 1834.

Secondly. *As to the decrease in relation to the population.*

The average annual population from 1813 to 1834, was 12,583,000, the rate per head, on that number, for relief, was 10*s.* 4*d.*; the average population from 1835 to 1859, was 17,087,297, and the rate 6*s.*  $-\frac{1}{2}$ *d.* per head, or a decrease of 4*s.* 3 $\frac{1}{2}$ *d.* per head, that is 42 per cent. Had the expenditure from 1835 to 1859 remained at 10*s.* 4*d.* per head, the total sum expended in relief during the quarter of a century the amended law has been in operation, instead of amounting to 129,226,833*l.*, would have been 220,705,900*l.*, or *ninety-one millions* more than it actually reached.

Thirdly. *As to the decrease in relation to the wealth of the country.*

It is not possible to compare the expenditure for relief with the income of the Country, because nothing better than conjectural estimates exist of the annual profits and earnings of the people. But, there are one or two important exponents of the wealth of the community, that may be advantageously compared with the relief expenditure. The first is the annual value of real property assessed to the property tax. The “rateable” value of property, that is the sum on which the poor rate itself is raised, cannot be shown, as I have already stated, for any period anterior to 1841. The property tax assessment falls very nearly on the same property as that upon which the poor rate is incident. In 1815, it was 51,898,423*l.*; the average expenditure for relief in the three years 1814, '15, and '16 was 5,812,755*l.*, which was equal to a rate of 2*s.* 3*d.* in the pound on the property tax assessment. In 1857, the annual value of real property was 103,496,253*l.*; the average expenditure for relief in the three years 1856, '57, and '58, was 5,778,662*l.*, or 1*s.* 1 $\frac{1}{2}$ *d.* in the pound. A decrease of 50 per cent. had taken place in the latter, as compared with the former period.

\* The law charges were 59,164*l.*, and the cost of removals 21,569*l.* See House of Commons Papers, No. 77 (D), Sess. 2, 1857, and No. 506, Sess. 1858.



The second is the declared value of imports and exports of the United Kingdom, by which the expansion of our trade, commerce, and manufactures is indicated. During the five years ended on the 31st December, 1833, the declared value was on the average 83,567,482*l.*; the average expenditure for relief during the five nearest parochial years, that is, from 1830 to 1834, was 6,754,591*l.*; had this sum been raised by a tax upon the imports and exports, it would have required a levy of 1*s.* 7½*d.* in the pound. But during the five years ended with 1858, the average declared value had risen to 295,718,831*l.* The average relief of the five years ended at Lady-day, 1859, was 5,845,980*l.*; a levy of 4¾*d.* in the pound on the declared value would cover that sum. Regarded in this light, that portion of the poor rate which is applied to relief, has decreased upwards of 75 per cent.

A humbler, but most interesting exponent of the country's wealth, is found in the amount of deposits in the savings' banks of England and Wales. The industry, forethought, and self-denial, which enable the labourer to become a savings' bank depositor are qualities immediately and powerfully antagonistic to habits of pauperism. It would, therefore, seem to be one of the most useful tasks to compare, from time to time, the capital accumulated by the thrifty, with the cost to the ratepayers of that unthrifty, and therefore unfortunate, portion of the community, who come upon the parish.

In the three years 1832, '33, and '34, the average amount of deposits and interest in the savings' banks of England and Wales was 15,697,354*l.*; the average relief in the three parochial years, 1832, '33, and '34, was 6,715,008*l.*; here, then, for 1*l.* annually spent in relief, 2*l.* 6*s.* 9*d.* had accumulated in the savings' banks. But in the three years 1855, '56, and '57, the deposits and interest had risen to an average of 36,830,795*l.*; the relief for the three parochial years, 1855, '56, and '57, was on the average 5,931,014*l.*, that is, for 1*l.* yearly paid in relief 6*l.* 4*s.* 2*d.* had been amassed in the savings' banks. The accumulated savings had gained upon the annual relief in a ratio nearly *threefold*.

Carefully reviewing the evidence here adduced, bearing in mind on the one hand the absolute decrease in the amount of relief, and on the other, the increase in the riches and population of the country, are we not warranted in regarding the burthen as now but *one-third* of what it was before 1834? and that, when viewed in relation to the growth in numbers, industry, and wealth of the community, can we not in truth say it is a diminishing ratio? Instead of pauperism pressing upon industry, that industry is, in the present day, outstripping pauperism?

I have endeavoured in this paper to confine myself to an exposi-



tion of facts and their numerical exponents—but, in searching for materials to illustrate the statistical history of the poor rate, I have been forcibly reminded of the words of old Fuller. Humane but discriminating words, pregnant with suggestions for a sound and practicable poor law.

“Those are ripe for charitie” says Fuller, “which are withered  
“by age or impotencie—especially if maimed in following their calling;  
“for such are industries martyrs, at least her confessours, adde to  
“these, those, that with diligence fight against poverty, though  
“neither conquer ’till death make it a drawn battel.” \* \* \* \*

“The house of correction is the fittest hospital for those cripples  
“whose legs are lame through their own lazinesse. Surely King  
“Edward the Sixth was as truly charitable in granting Bridewell for  
“the punishment of sturdy rogues, as in giving St. Thomas’s  
“Hospital for the relief of the poore.”

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## APPENDIX.

TABLE I.—*Poor Rates Levied, and Receipts in aid of Poor Rates in England and Wales, during 52 years.*

Parochial Years.*	Amount of Poor Rates Levied	Receipts in aid of Poor Rates.	Total Receipts.	Parochial Years.*	Amount of Poor Rates Levied.	Receipts in aid of Poor Rates.	Total Receipts.
	£				£	£	£
1776 ....	1,720,317			1833 ....	8,606,501	} Not stated.	Not stated.
'83 ....	2,132,487			'34 ....	8,338,079		
'84 ....	2,185,889			'35 ....	7,373,807		
'85 ....	2,184,905			'36 ....	6,354,538		
				'37 ....	5,294,566		
1803 ....	5,348,205			'38 ....	5,186,389		
				'39 ....	5,613,939		
1813 ....	8,646,841			'40 ....	6,014,605	227,966	6,242,571
'14 ....	8,388,974						
'15 ....	7,457,676			1841 ....	6,351,828	226,984	6,578,812
'16 ....	6,937,425	} Not stated.	Not stated.	'42 ....	6,552,890	201,514	6,754,404
'17 ....	8,128,418			'43 ....	7,085,595	219,006	7,304,601
'18 ....	9,320,440			'44 ....	6,847,205	219,592	7,066,797
'19 ....	8,932,185			'45 ....	6,791,006	218,505	7,009,511
'20 ....	8,719,655			'46 ....	6,800,623	187,043	6,988,666
				'47 ....	6,964,825	152,527	7,117,352
1821 ....	8,411,893			'48 ....	7,817,430	158,664	7,976,094
'22 ....	7,761,441			'49 ....	7,674,146	199,751	7,873,897
'23 ....	6,898,153			'50 ....	7,270,493	230,002	7,500,494
'24 ....	6,836,505						
'25 ....	6,972,323			1851 ....	6,778,914	181,407	6,960,321
'26 ....	6,965,051			'52 ....	6,552,298	318,070	6,870,368
'27 ....	7,784,352			'53 ....	6,522,412	282,971	6,805,383
'28 ....	7,715,055			'54 ....	6,973,220	278,061	7,251,281
'29 ....	7,642,171			'55 ....	7,864,149	310,805	8,174,954
'30 ....	8,111,422			'56 ....	8,201,348	295,110	8,496,458
				'57 ....	8,139,003	301,987	8,440,990
1831 ....	8,279,218			'58 ....	8,188,880	303,240	8,492,120
'32 ....	8,622,920			'59 ....	8,108,222	326,566	8,434,788

\* The "Parochial Year" ended at Easter up to, and inclusive of, the Year 1813-14; since that time it has always terminated at Lady-day.

TABLE II.—*The Poor Rate Levy, and the successive differences in amount between each year.*

Parochial Years.	Amount of Poor Rates Levied.	Difference in the Amount of Successive Years.		Difference per Cent.	
		<i>More.</i>	<i>Less.</i>	<i>More.</i>	<i>Less.</i>
	£				
1776 .....	1,720,317	—	—	—	—
'83 .....	2,132,487	412,170	—	24·0	—
'84 .....	2,185,889	53,402	—	2·5	—
'85 .....	2,184,905	—	984	—	0·0
1803 .....	5,348,205	3,163,300	—	144·8	—
1813 .....	8,646,841	3,298,636	—	61·7	—
'14 .....	8,388,974	—	257,867	—	3·0
'15 .....	7,457,676	—	931,298	—	11·1
'16 .....	6,937,425	—	520,251	—	7·0
'17 .....	8,128,418	1,190,993	—	17·2	—
'18 .....	9,320,440	1,192,022	—	14·7	—
'19 .....	8,932,185	—	388,255	—	4·2
'20 .....	8,719,655	—	212,530	—	2·4
1821 .....	8,411,893	—	307,762	—	3·5
'22 .....	7,761,441	—	650,452	—	7·7
'23 .....	6,898,153	—	863,288	—	11·1
'24 .....	6,836,505	—	61,648	—	0·9
'25 .....	6,972,323	135,818	—	2·0	—
'26 .....	6,965,051	—	7,272	—	0·1
'27 .....	7,784,352	819,301	—	11·8	—
'28 .....	7,715,055	—	69,297	—	0·9
'29 .....	7,642,171	—	72,884	—	0·9
'30 .....	8,111,422	469,251	—	6·1	—
1831 .....	8,279,218	167,796	—	2·1	—
'32 .....	8,622,920	343,702	—	4·2	—
'33 .....	8,606,501	—	16,419	—	0·2
'34 .....	8,338,079	—	268,422	—	3·1
'35 .....	7,373,807	—	964,272	—	11·6
'36 .....	6,354,538	—	1,019,269	—	13·8
'37 .....	5,294,566	—	1,059,972	—	16·7
'38 .....	5,186,389	—	108,177	—	2·0
'39 .....	5,613,939	427,550	—	8·2	—
'40 .....	6,014,605	400,666	—	7·1	—
1841 .....	6,351,828	337,223	—	5·6	—
'42 .....	6,552,890	201,062	—	3·2	—
'43 .....	7,085,595	532,705	—	8·1	—
'44 .....	6,847,205	—	238,390	—	3·4
'45 .....	6,791,006	—	56,199	—	0·8
'46 .....	6,800,623	9,617	—	0·1	—
'47 .....	6,964,825	164,202	—	2·4	—
'48 .....	7,817,430	852,605	—	12·2	—
'49 .....	7,674,146	—	143,284	—	1·8
'50 .....	7,270,493	—	403,653	—	5·3
1851 .....	6,778,914	—	491,579	—	6·8
'52 .....	6,552,298	—	226,616	—	3·3
'53 .....	6,522,412	—	29,886	—	0·5
'54 .....	6,973,220	450,808	—	6·9	—
'55 .....	7,864,149	890,929	—	12·8	—
'56 .....	8,201,348	337,199	—	4·1	—
'57 .....	8,139,003	—	62,345	—	0·8
'58 .....	8,188,880	49,877	—	0·6	—
'59 .....	8,108,222	—	80,658	—	1·0



TABLE III.—*The Rate per head of Poor Rate Levy, and of Relief to the Poor in England and Wales for each year.*

Parochial Years.	Population. (England and Wales.)	Rate per Head on the Population of		Parochial Years.	Population. (England and Wales.)	Rate per Head on the Population of	
		Levy.	Relief to the Poor.			Levy.	Relief to the Poor.
		s. d.	s. d.			s. d.	s. d.
1776 ...	7,535,000	4 6 $\frac{3}{4}$	4 $\frac{3}{4}$	1833 ...	14,309,000	12 $\frac{1}{4}$	9 6
'83 ...	8,051,000	5 3 $\frac{1}{2}$	4 11 $\frac{3}{4}$	'34 ...	14,372,000	11 7 $\frac{1}{4}$	8 9 $\frac{1}{2}$
'84 ...		5 5 $\frac{1}{4}$		'35 ...	14,564,000	10 1 $\frac{1}{2}$	7 7
'85 ...		5 5 $\frac{1}{4}$		'36 ...	14,758,000	8 7 $\frac{1}{4}$	6 4 $\frac{3}{4}$
1803 ...	9,277,000	11 6 $\frac{1}{4}$	8 9 $\frac{1}{2}$	'37 ...	14,955,000	7 1	5 5
1813 ...	10,685,000	16 2 $\frac{1}{4}$	12 5 $\frac{1}{2}$	'38 ...	15,155,000	6 10 $\frac{1}{4}$	5 5 $\frac{1}{4}$
'14 ...	10,862,000	15 5 $\frac{1}{2}$	11 7	'39 ...	15,357,000	7 3 $\frac{3}{4}$	5 8 $\frac{3}{4}$
'15 ...	11,017,000	13 6 $\frac{1}{2}$	9 10	'40 ...	15,562,000	7 8 $\frac{3}{4}$	5 10 $\frac{1}{4}$
'16 ...	11,221,000	12 4 $\frac{1}{2}$	10 2 $\frac{1}{2}$	1841 ...	15,911,757	7 11 $\frac{3}{4}$	5 11 $\frac{3}{4}$
'17 ...	11,392,000	14 3 $\frac{1}{4}$	12 1 $\frac{1}{2}$	'42 ...	15,981,000	8 2 $\frac{1}{2}$	6 1 $\frac{1}{4}$
'18 ...	11,575,000	16 1 $\frac{1}{4}$	13 7 $\frac{1}{4}$	'43 ...	16,194,000	8 9	6 5 $\frac{1}{4}$
'19 ...	11,738,000	15 2 $\frac{1}{2}$	12 9 $\frac{3}{4}$	'44 ...	16,410,000	8 4 $\frac{1}{4}$	6 $\frac{3}{4}$
'20 ...	11,902,000	14 7 $\frac{3}{4}$	12 3 $\frac{3}{4}$	'45 ...	16,629,000	8 2	6 $\frac{3}{4}$
1821 ...	12,089,000	13 11	11 6 $\frac{1}{4}$	'46 ...	16,851,000	8 $\frac{3}{4}$	5 10 $\frac{1}{2}$
'22 ...	12,297,000	12 7 $\frac{1}{2}$	10 4	'47 ...	17,076,000	8 2	6 2 $\frac{1}{2}$
'23 ...	12,519,000	11 $\frac{1}{4}$	9 2 $\frac{3}{4}$	'48 ...	17,304,000	9 $\frac{1}{2}$	7 1 $\frac{3}{4}$
'24 ...	12,711,000	10 9	9 $\frac{1}{4}$	'49 ...	17,534,000	8 9	6 7 $\frac{1}{4}$
'25 ...	12,897,000	10 9 $\frac{3}{4}$	8 11 $\frac{3}{4}$	'50 ...	17,765,000	8 2 $\frac{1}{4}$	6 1
'26 ...	13,071,000	10 8	9 $\frac{3}{4}$	1851 ...	17,927,609	7 6 $\frac{3}{4}$	5 6 $\frac{1}{2}$
'27 ...	13,235,000	11 9 $\frac{1}{4}$	9 8 $\frac{3}{4}$	'52 ...	18,205,000	7 2 $\frac{1}{2}$	5 4 $\frac{1}{2}$
'28 ...	13,413,000	11 6	9 4 $\frac{3}{4}$	'53 ...	18,402,000	7 1	5 4 $\frac{1}{2}$
'29 ...	13,613,000	11 2 $\frac{3}{4}$	9 3 $\frac{3}{4}$	'54 ...	18,617,000	7 6	5 8
'30 ...	13,782,000	11 9 $\frac{1}{4}$	9 11	'55 ...	18,840,000	8 4 $\frac{1}{4}$	6 3
1831 ...	13,968,000	11 10 $\frac{1}{4}$	9 8 $\frac{3}{4}$	'56 ...	19,043,000	8 7 $\frac{1}{4}$	6 3 $\frac{3}{4}$
'32 ...	14,156,000	12 2 $\frac{1}{4}$	9 11 $\frac{1}{4}$	'57 ...	19,207,000	8 5 $\frac{1}{4}$	6 1 $\frac{3}{4}$
				'58 ...	19,361,000	8 5 $\frac{1}{2}$	6 $\frac{3}{4}$
				'59 ...	19,578,000	8 3 $\frac{1}{2}$	5 8

TABLE IV.—*Sums repaid by Her Majesty's Treasury to the Guardians in respect of Salaries.*

Parochial Years.	Repayments by H. M. Treasury to the Guardians for Salaries of		
	Medical Officers.	Schoolmasters and Schoolmistresses.	TOTAL.
	£	£	£
1847 .....	34,835	9,582	44,417*
'48 .....	77,892	18,362	96,254
'49 .....	78,425	20,529	98,954
'50 .....	79,605	20,001	99,606
1851 .....	79,722	21,306	101,028
'52 .....	81,429	21,848	103,277
'52 .....	82,599	32,246	104,845
'54 .....	84,292	23,013	107,305
'55 .....	86,148	23,982	110,130
1856 .....	88,394	26,616	115,010
'57 .....	89,564	29,398	118,962
'58 .....	91,553	30,857	122,410
'59 .....	92,483	31,117	123,600

\* Payment in respect of half-year's salaries only.

Table V.—*Poor Rate Valuations, with the Rate in the £ of Levy ; and the Rate in the £ for Relief to the Poor.*

Parochial Years.	Poor Rate Valuations.*		Amount of Poor Rates Levied.	Rate in the £ of Levy on		Expended for Relief to the Poor.	Rate in the £ for Relief on	
	Gross Estimated Rental.	Net Annual Value.		Gross Estimated Rental.	Net Annual Value.		Gross Estimated Rental.	Net Annual Value.
	£	£	£	s. d.	s. d.	£	s. d.	s. d.
1840-41.	not known	62,540,030	6,351,828	—	2 0'4	4,760,929	—	1 6'3
'46-47.	,,	67,320,587	6,964,825	—	2 0'8	5,298,787	—	1 6'9
'49-50.	,,	67,700,153	7,270,493	—	2 1'8	5,395,022	—	1 7'1
'55-56.	86,077,676	71,840,271	8,201,348	1 10'9	2 3'4	6,004,244	1 4'7	1 8'1

\* The details of these Valuations will be found in the following Papers, printed by order of the House of Commons, viz., No. 235, "Real Property," 1842; No. 735, "Poor Rates, &c." 1848; No. 539, "Poor Rate Assessment," 1852; No. 63, "Population, &c. of Parishes," 1858; and No. 251, "Population, Inhabited Houses, &c.," 1859.

TABLE VI.—*Amount of Poor Rates Levied in 1851-2 in England and Wales on*

	Mlns. £
Land .....	2·708
Houses .....	3·125
Tithes .....	·295
Coal mines .....	·061
Saleable underwoods .....	·029
Canals .....	·028
Railways .....	·205
Other property .....	·102
Total .....	<u>6·553</u>

*Annual Value of Railways in 1852.*

	£
For the Poor Rate assessment .....	2,050,000
„ Property Tax (Schedule A) .....	<u>6,442,000</u>

TABLE VII.—*Amounts assessed to the Property Tax in England and Wales in respect of different descriptions of property in 1856.*

Heads of Assessment to Property Tax.	
Mlns. £ 101·938	Total
41·048	Lands
44·196	Messuages
·367	Tithes
·187	Manors
·305	Fines
·274	Quarries
2·658	Mines
·916	Ironworks
·018	Fisheries
·823	Canals
8·630	Railways
·677	Gasworks
1·711	Other property
·128	General profits
101·938	Gross assessment*
93·288	Charged*

\* Gross = Charged + deductions under the Act.



TABLE VIII.—*Relief to the Poor (England and Wales), and Rate per head of Relief to illustrate the Four Epochs.*

Epochs.	Parochial Years.	General Laws for Administering Relief.	Expended for Relief the Poor.	Remarks.	Rate per Head of Relief on Estimated Population.
1st ...	{ 1601 to 1722 } 121	43 Eliz., c. 43 .....	£ (No returns)	—	s. d. —
2nd ...	{ 1722 to 1795 } 73	9 Geo. I, c. 7 .....	1776 1,529,780 1783 } 1784 } 2,004,238 1785 }	First authentic return  —	4 —  5 —
3rd ...	{ 1795 to 1834 } 39	36 Geo. III, c. 23 .	1803 4,077,891 1813 6,656,106 1818 7,870,801 1834 6,317,255	{ First return of pre- sent century } { First return of un- broken series } <i>Maximum</i> year { Last year previous to P. L. A. Act }	{ 8 9 12 5 13 7 8 9 }
4th ...	{ 1834 to 1859 } 25	4 & 5 Wm. IV, c. 76	1837 4,044,741 1848 6,180,764 1859 5,558,689	{ <i>Minimum</i> year in present century } { Highest since P. L. A. Act } Last return	{ 5 5 7 2 5 8 }
	Yrs. .... 258				

TABLE IX.—*Expenditure for Relief to the Poor in England and Wales, and the successive differences in amount between each year.*

Parochial Years.*	Expended for the Relief of the Poor.	Difference in Expenditure in each Year, compared with that preceding it.		Difference per Cent.		Average Price of Wheat per Quarter.
		More.	Less.	More.	Less.	
1776 .....	£ 1,529,780	—	—	—	—	s. d. 45 —
'83 .... } '84 .... } '85 .... }	2,004,238	474,458	—	31·0	—	46 6½
1803 .....	4,077,891	2,073,653	—	103·5	—	64 8

TABLE IX.—*Expenditure for Relief to the Poor.—Contd.*

Parochial Years.*	Expended for the Relief of the Poor.	Difference in Expenditure in each Year, compared with that preceding it.		Difference per Cent.		Average Price of Wheat per Quarter.	
		More.	Less.	More.	Less.		
	£					s.	d.
1813 .....	6,656,106	2,578,215	—	63·2	—	125	6
'14 .....	6,294,581	—	361,525	—	5·4	108	9
'15 .....	5,418,846	—	875,735	—	13·9	73	11
'16 .....	5,724,839	305,993	—	5·6	—	64	4
'17 .....	6,910,925	1,186,086	—	20·7	—	78	10
'18 .....	7,870,801	959,876	—	13·9	—	94	9
'19 .....	7,516,704	—	354,097	—	4·5	84	1
'20 .....	7,330,254	—	186,450	—	2·5	73	—
1821 .....	6,959,251	—	371,003	—	5·1	65	7
'22 .....	6,358,704	—	600,547	—	8·6	54	5
'23 .....	5,772,962	—	585,742	—	9·2	43	3
'24 .....	5,736,900	—	36,062	—	0·6	51	9
'25 .....	5,786,989	50,089	—	0·9	—	62	—
'26 .....	5,928,502	141,513	—	2·4	—	66	6
'27 .....	6,441,088	512,586	—	8·6	—	56	11
'28 .....	6,298,000	—	143,088	—	2·2	56	9
'29 .....	6,332,410	34,410	—	0·5	—	60	5
'30 .....	6,829,042	496,632	—	7·8	—	62	10
1831 .....	6,798,889	—	30,153	—	0·4	67	8
'32 .....	7,036,969	238,080	—	3·5	—	63	4
'33 .....	6,790,800	—	246,169	—	3·5	57	3
'34 .....	6,317,255	—	473,545	—	7·0	51	11
'35 .....	5,526,418	—	790,837	—	12·5	44	2
'36 .....	4,717,630	—	808,788	—	14·6	39	5
'37 .....	4,044,741	—	672,889	—	14·3	52	6
'38 .....	4,123,604	78,863	—	1·9	—	55	3
'39 .....	4,406,907	283,303	—	6·9	—	69	4
'40 .....	4,576,965	170,058	—	3·9	—	68	6
1841 .....	4,760,929	183,964	—	4·0	—	65	3
'42 .....	4,911,498	150,569	—	3·2	—	64	—
'43 .....	5,208,027	296,529	—	6·0	—	54	4
'44 .....	4,976,093	—	231,934	—	4·5	51	5
'45 .....	5,039,703	63,610	—	1·3	—	49	2
'46 .....	4,954,204	—	85,499	—	1·7	53	3
'47 .....	5,298,787	344,583	—	7·0	—	59	—
'48 .....	6,180,764	881,977	—	16·6	—	64	6
'49 .....	5,792,963	—	387,801	—	6·3	49	1
'50 .....	5,395,022	—	397,941	—	6·9	42	7
1851 .....	4,962,704	—	432,318	—	8·0	39	11
'52 .....	4,897,685	—	65,019	—	1·3	39	4
'53 .....	4,939,064	41,379	—	0·8	—	42	—
'54 .....	5,282,853	343,789	—	7·0	—	61	7
'55 .....	5,890,041	607,188	—	11·5	—	70	—
'56 .....	6,004,244	114,203	—	1·9	—	75	4
'57 .....	5,898,756	—	105,488	—	1·8	65	3
'58 .....	5,878,542	—	20,214	—	0·3	53	10
'59 .....	5,558,689	—	319,853	—	5·4	42	9

*Note.*—The returns for the first six years were made up to Easter, and from 1814 to the present time, to Lady-Day in each year.

The average prices of Wheat up to, and inclusive of 1829, are given for the years ended at Christmas preceding the respective Lady-Day, but from 1830 the prices are given for the parochial years.

TABLE X.—*Relief to the Poor one year BEFORE, and three years AFTER, the Poor Law Amendment Act.*

COUNTIES.	Population in 1851.	One Year before, and Three Years after, the Poor Law Amendment Act.							
		Expended for Relief of the Poor. Parochial Years.		Decrease in 1837.	De- crease per Cent. in 1837, com- pared with 1834.	Rate per Head of Relief on Population.		De- crease per Head in 1837, com- pared with 1834.	
		1833-4.	1836-7.			1834.	1837.		
		£	£	£		s. d.	s. d.	s. d.	
Bedford .....	95,483	77,819	37,530	40,289	52	16 4	8 —	8 4	
Berks .....	145,389	100,183	56,618	43,565	43	13 9	7 9	6 —	
Buckingham .....	146,529	124,200	63,329	60,871	49	16 11	8 8	8 3	
Cambridge .....	143,955	96,497	62,722	33,775	35	13 5	8 9	4 8	
Chester .....	334,391	92,640	67,917	24,723	27	5 6	4 1	1 5	
Cornwall .....	300,938	93,037	70,653	22,384	24	6 2	4 8	1 6	
Cumberland .....	169,681	43,067	32,598	10,469	24	5 1	3 10	1 3	
Derby .....	237,170	72,721	48,867	23,854	33	6 2	4 1	2 1	
Devon .....	494,478	210,825	161,696	49,129	23	8 6	6 7	1 11	
Dorset .....	159,252	84,293	58,267	26,026	31	10 7	7 4	3 3	
Durham .....	253,910	79,399	60,594	18,805	24	6 3	4 9	1 4	
Essex .....	317,507	239,946	148,654	91,292	38	15 1	9 4	5 9	
Gloucester .....	387,019	161,449	105,670	55,779	34	8 4	5 5	2 11	
Hereford .....	111,211	56,683	39,218	17,465	31	10 2	7 1	3 1	
Hertford .....	143,341	85,799	49,670	36,129	42	12 —	6 11	5 1	
Huntingdon .....	53,192	35,844	21,676	14,168	40	13 6	8 1	5 5	
Kent .....	479,155	343,878	185,503	158,375	46	14 3	7 9	6 6	
Lancaster .....	1,336,854	253,405	183,790	69,615	27	3 9	2 9	1 —	
Leicester .....	197,003	100,857	55,019	45,838	45	10 3	5 7	4 8	
Lincoln .....	317,465	161,074	111,242	49,832	31	10 2	7 —	3 2	
Middlesex .....	1,358,330	582,412	360,981	221,431	38	8 7	5 4	3 3	
Monmouth .....	98,130	27,626	19,487	8,139	29	5 8	4 —	1 4	
Norfolk .....	390,054	306,787	177,538	129,249	42	15 9	9 1	6 8	
Northampton .....	179,336	140,179	74,072	66,107	47	15 8	8 3	7 5	
Northumberland .....	222,912	71,983	59,363	12,620	18	6 6	5 4	1 2	
North Wales .....	360 211	137,558	118,115	19,443	14	7 8	6 7	1 1	
Nottingham .....	225,327	66,030	46,562	19,468	29	5 10	4 2	1 8	
Oxford .....	152,156	120,616	66,483	54,133	45	15 10	8 9	7 1	
Rutland .....	19,385	9,008	6,179	2,829	31	9 4	6 5	2 11	
Salop .....	222,938	82,493	56,351	26,142	32	7 5	5 1	2 4	
Somerset .....	404,200	176,286	124,699	51,587	29	8 9	6 2	2 7	
Southampton .....	314,280	203,466	123,840	79,626	39	12 11	6 2	6 9	
South Wales .....	445,971	150,325	123,317	27,008	18	6 9	5 6	1 3	
Stafford .....	410,512	120,512	83,817	36,695	30	5 10	4 1	1 9	
Suffolk .....	296,317	245,509	136,870	108,639	44	16 7	9 3	7 4	
Surrey .....	486,334	261,501	151,959	109,542	42	10 9	6 3	4 6	
Sussex .....	272,340	246,626	116,684	129,942	53	18 1	8 7	9 6	
Warwick .....	336,610	158,159	98,910	59,249	37	9 5	5 11	3 6	
Westmorland .....	55,041	22,283	16,162	6,121	27	8 1	5 10	2 3	
Wilts .....	240,156	173,925	105,451	68,474	39	14 6	8 9	5 9	
Worcester .....	211,365	81,612	54,706	26,906	33	7 9	5 2	2 7	
York, East Riding .....	204,253	91,111	66,339	24,772	27	8 11	6 6	2 5	
„ North Riding .....	190,756	75,810	56,013	19,797	26	7 11	5 10	2 1	
„ West Riding .....	976,350	251,821	179,610	72,211	29	5 2	3 8	1 6	
Totals .....	13,897,187	6,317,254	4,044,741	2,272,513	36	9 1	5 10	3 3	



TABLE XI.—*Decrease PER CENT. in Relief to the Poor in each County in 1837, as compared with 1834.*

Order of Alleviation.	COUNTIES. (Proper.)	Expenditure for Relief to the Poor in 1834.	Decrease per Cent. in 1837, compared with 1834.	Order of Alleviation.	COUNTIES. (Proper.)	Expenditure for Relief to the Poor in 1834.	Decrease per Cent. in 1837, compared with 1834.
1	Sussex .....	£ 246,626	53	24	Dorset .....	84,293	31
2	Bedford .....	77,819	52	25	Hereford .....	56,683	31
3	Buckingham .....	124,200	49	26	Lincoln ....	161,074	31
4	Northampton.....	140,179	47	27	Rutland .....	9,008	31
5	Kent .....	343,878	46	28	Stafford .....	120,512	30
6	Leicester .....	100,857	45	29	Monmouth.....	27,626	29
7	Oxford .....	120,616	45	30	Nottingham .....	66,030	29
8	Suffolk .....	245,509	44	31	Somerset [ .....	176,286	29
9	Berks.....	100,183	43	32	York, West Riding.	251,821	29
10	Hertford .....	85,799	42	33	Chester .....	92,640	27
11	Norfolk .....	306,787	42	34	Lancaster .....	253,405	27
12	Surrey [ .....	261,501	42	35	Westmoreland .....	22,283	27
13	Huntingdon .....	35,844	40	36	York, East Riding....	91,111	27
14	Southampton.....	203,466	39	37	„ North Riding.	75,810	26
15	Wilts .....	173,925	39	38	Cornwall .....	93,037	24
16	Essex.....	239,946	38	39	Cumberland .....	43,067	24
17	Middlesex .....	582,412	38	40	Durham.....	79,399	24
18	Warwick [ .....	158,159	37	41	Devon [ .....	210,825	23
19	Cambridge.....	96,497	35	42	Northumberland ...	71,983	18
20	Gloucester .....	161,449	34	43	South Wales .....	150,325	18
21	Derby .....	72,721	33	44	North „ .....	137,558	14
22	Worcester .....	81,612	33				
23	Salop .....	82,493	32		Totals .....	6,317,254	36

TABLE XII.—*Rate PER HEAD of Relief to the Poor in each County in 1813 and 1837, with the DECREASE in the latter as compared with the former year.*

Order of Pressure.	COUNTIES.	Rate per Head of Relief on the Population.*			Order of Pres- sure.	COUNTIES.	Rate per head of Relief on the Population.*								
		1813. (Census, 1811.)		Decrease per Head in 1837.			1837. (Census, 1831.)		Decrease per Head in 1837.						
		s.	d.				s.	d.							
1	Sussex .....	32	—	9	—	23	—	22	Somerset .....	12	—	6	—	6	—
2	Berks .....	26	—	8	—	18	—	23	Worcester.....	12	—	5	—	7	—
3	Essex .....	24	—	9	—	15	—	24	Devon .....	11	—	7	—	4	—
4	Oxford .....	23	—	9	—	14	—	25	Gloucester .....	11	—	5	—	6	—
5	Wilts .....	23	—	9	—	14	—	26	Lincoln.....	11	—	7	—	4	—
6	Buckingham.....	22	—	9	—	13	—	27	Salop .....	11	—	5	—	6	—
7	Norfolk.....	19	—	9	—	10	—	28	Chester.....	10	—	4	—	6	—
8	Northampton .....	19	—	8	—	11	—	29	Derby .....	10	—	4	—	6	—
9	Suffolk .....	19	—	9	—	10	—	30	Middlesex .....	10	—	5	—	5	—
10	Southampton .....	18	—	8	—	10	—	31	Nottingham .....	10	—	4	—	6	—
11	Bedford .....	17	—	8	—	9	—	32	East York.....	10	—	7	—	3	—
12	Dorset .....	17	—	7	—	10	—	33	West „ .....	10	—	4	—	6	—
13	Hereford .....	17	—	7	—	10	—	34	Cornwall .....	9	—	5	—	4	—
14	Cambridge .....	16	—	9	—	7	—	35	Durham .....	9	—	5	—	4	—
15	Huntingdon .....	16	—	8	—	8	—	36	Monmouth .....	9	—	4	—	5	—
16	Kent.....	16	—	8	—	8	—	37	Westmorland .....	9	—	6	—	3	—
17	Leicester .....	14	—	6	—	8	—	38	North York .....	9	—	6	—	3	—
18	Hertford .....	13	—	7	—	6	—	39	Northumberland ....	8	—	5	—	3	—
19	Rutland .....	13	—	6	—	7	—	40	North Wales .....	8	—	7	—	1	—
20	Surrey .....	13	—	6	—	7	—	41	Stafford.....	8	—	4	—	4	—
								42	Cumberland .....	7	—	4	—	3	—
								43	Lancaster .....	7	—	3	—	4	—
								44	South Wales.....	6	6	6	—	—	6
									TOTAL OF ENG- } LAND & WALES }	13	—	6	—	7	—

\* In the Parliamentary Return of 1813, the rate per head is computed to the nearest shilling; the rate for 1837 is therefore given in the like manner for the purpose of comparison.





TABLE XIV.—*Principal Items which constitute “Relief to the Poor” as separately given in the Poor Rate Return for 1849, and subsequently.*

Parochial Years.	Amount Expended for Relief of the Poor						
	<i>In-Maintenance.</i>	<i>Out-Relief.</i>	<i>Main-tenance of Lunatics in Asylums and Licensed Houses.</i>	<i>Work-house Loans, &amp;c. Paid, and Interest thereon.</i>	<i>Salaries and Rations of Officers.</i>	<i>Other Expenses of, or immediately connected with Relief.</i>	<i>Totals.</i>
	£	£	£	£	£	£	£
1849 ....	1,052,515	3,359,270	—	Included in other expenses.	Included in other expenses.	1,381,178	5,792,963
'50 ....	914,264	3,155,097	—			1,325,661	5,395,022
1851 ....	789,914	2,873,588	—			1,229,202	4,962,704
'52 ....	763,399	2,808,298	—			1,325,988	4,897,685
'53 ....	762,718	2,775,556	—	197,839	596,163	606,788	4,939,064
1854 ....	924,938	2,887,630	—	205,066	611,195	654,024	5,282,853
'55 ....	1,093,712	3,192,909	—	221,219	619,969	762,232	5,890,041
'56 ....	1,139,902	3,239,534	—	208,576	633,147	783,084	6,004,243
1857 ....	1,088,558	3,152,278	377,659	217,196	637,629	425,437	5,898,757
'58 ....	1,067,803	3,117,274	397,826	202,605	638,441	454,593	5,878,542
'59 ....	954,509	2,923,199	413,357	194,579	638,206	434,839	5,558,689

TABLE XV.—*Synopsis of the principal items which constitute the amounts entered in the respective columns of the ANNUAL POOR RATE RETURN, as now published, in the Parliamentary series, under the title of POOR RATES and PAUPERISM.*

DESCRIPTION.	Consecutive Numbering of the Printed Columns in the Return.
RECEIPTS.	
Col. 1.—“FROM POOR RATES” .....	1st.
Money raised by assessment for the relief of the poor, and for other purposes chargeable thereon, according to law, within the parochial year, on the net annual value of the several hereditaments rated.	
Col. 2.—“RECEIPTS IN AID OF RATES” .....	2nd.
Sums received by the overseers from various sources, namely,—	
1. Rents of parish property.	
2. Income of funds of parish.	
3. Relations of paupers.	
4. Fathers and mothers of illegitimate children.	
5. Repayments of loans to paupers.	
6. Payments under orders of removal.	

TABLE XV.—SYNOPTICAL TABLE, &c.—*Contd.*

DESCRIPTION.	Consecutive Numbering of the Printed Columns in the Return.
<p style="text-align: center;">RECEIPTS—<i>Contd.</i></p> <p>7. Value of relief in kind repaid by relieving officers.</p> <p>8. Fines, penalties, and forfeitures paid under convictions or orders of justices.</p> <p>9. Lists of claimants and voters sold.</p> <p>Sums received by the guardians, namely—</p> <p>1. Repayments by Her Majesty's Treasury in respect of the salaries of medical officers, and the schoolmasters' and schoolmistresses' salaries, out of money voted by Parliament annually for those purposes.</p> <p>2. Sale of materials variously wrought by pauper labour.</p> <p>3. The produce of workhouse lands and gardens.</p> <p>4. Relief repaid to the guardians.</p> <p>5. Certified balances due by overseers on going out of office at Lady-day.</p> <p>6. Sums disallowed and surcharged by district auditors.</p>	
<p>Col. 3.—“TOTAL RECEIPTS” .....</p> <p style="padding-left: 40px;">Aggregate of the amounts in columns 1 and 2.</p>	<p>3rd.</p>
<p style="text-align: center;">EXPENDITURE.</p>	
<p>Sect. (A).—EXPENDED FOR RELIEF TO THE POOR, AND PURPOSES CONNECTED THEREWITH.</p>	
<p>Col. 1.—“Relief to the Poor” (comprising six sub-columns).</p> <p>(a.) “In-maintenance,” <i>i. e.</i>, the cost of food, clothing, and necessaries supplied for the use of the poor in the workhouse .....</p> <p>(b.) “Out-Relief,” <i>i. e.</i>, value of relief in money and kind; and, relief by way of loan .....</p> <p>(c.) “Maintenance of Lunatics in Asylums or Licensed Houses,” <i>i. e.</i>, the sums paid by the guardians, or by the overseers, to the treasurers of county or borough asylums, and to the proprietors of licensed houses .....</p> <p>(d.) “Workhouse Loans repaid, and Interest thereon”—Money advanced by the Public Works Loan Board, and others, on the security of the rates for the relief of the poor .....</p> <p>(e.) “Salaries and Rations of Officers”—The yearly remuneration of all the paid officers (<i>excepting the assistant overseers and collectors</i>); also <i>vestry clerks</i> appointed under 13 &amp; 14 Vict., c. 57, and the cost of the rations supplied to the workhouse officers .....</p> <p>(f.) “Other Expenses of, or immediately connected with Relief” .....</p>	<p>4th.</p> <p>5th.</p> <p>6th.</p> <p>7th.</p> <p>8th.</p> <p>9th.</p>

TABLE XV.—SYNOPTICAL TABLE. &c.—Contd.

DESCRIPTION.		Consecutive Numbering of the Printed Columns in the Return.
EXPENDITURE—Contd.		
Sect. (A.)—Col. 1.—Expended for Relief to the Poor, &c.—Contd.		
1. Purchase of materials to set the poor to work.		
2. The charge for apprenticing poor children.		
3. Expenses attendant upon the emigration of poor persons.		
4. Burial of the poor.		
5. Extra fees to medical officers for midwifery and surgical cases, paid under the General Consolidated Order, cost of drugs, surgical appliances, &c.		
6. Repairs of workhouses, and cost of furniture and utensils.		
7. Cost of account books, stationery, printing and advertisements; also of reading books, and other educational appliances.		
8. Rents, rates, taxes, and tithes; fire insurance.		
9. Certificates in lunacy, and cost of conveyance to asylums.		
10. Expenses of the removal of poor persons born in Scotland, Ireland, the Islands of Man, Scilly, Jersey, or Guernsey, and chargeable in England.		
11. Other charges (if any) which may be consequent upon relief, are given in this sub-column.		
“Total Relief to the Poor” is the aggregate of the amounts in sub-columns (a), (b), (c), (d), (e), and (f) .....		10th.
Col. 2.—“Costs of Proceedings at Law or in Equity (Parochial and Union)” .....		11th.
1. Expense of appeals against poor rates.		
2. Appeals against orders of removal.		
3. Prosecutions at the assizes, actions at law, suits in equity, or Parliamentary business in which the guardians may be engaged.		
Sect. (B.)—EXPENDED FOR PURPOSES UNCONNECTED WITH RELIEF.		
Col. 1.—“Payments for or towards the County, Hundred, or Borough Rate, or Police Rate” .....		12th.
Sums paid by the overseers, or by the guardians, in respect of the rates named, wherever they are paid out of the poor rates.		
Col. 2.—“Constables’ Expenses, and Costs of Proceedings before Justices” .....		13th.



TABLE XV.—SYNOPTICAL TABLE, &c.—*Contd.*

DESCRIPTION.	Consecutive Numbering of the Printed Columns in the Return.
<b>EXPENDITURE—<i>Contd.</i></b>	
Sect. (B.)—Expended for Purposes unconnected, &c.— <i>Contd.</i>	
<i>Constables' Expenses :</i>	
<ol style="list-style-type: none"> <li>1. Expenses of conveying prisoners to gaol in certain cases.</li> <li>2. Costs of apprehending vagrants and persons deserting or neglecting to maintain their families.</li> </ol>	
<i>Costs of Proceedings before Justices :</i>	
<ol style="list-style-type: none"> <li>1. Costs of obtaining orders of removal.</li> <li>2. Costs incurred in obtaining orders of maintenance under 43 Eliz., c, 2, s. 7.</li> <li>3. Other costs, when not recovered from the persons against whom the proceedings were taken.</li> <li>4. Expenses of district auditors in recovering certified sums, when not repaid by the persons against whom the proceedings were taken.</li> <li>5. Costs of civil and criminal proceedings when lawfully paid out of the poor rates,</li> <li>6. Of prosecutions in certain cases of misdemeanor.</li> <li>7. Prosecuting keepers of disorderly houses.</li> </ol>	
Col. 3.—“Payments on account of Registration Act, viz., Fees to Clergymen and Registrars; outlay for Register-office, Books, and Forms” .....	14th.
<ol style="list-style-type: none"> <li>1. Fees to clergymen for making duplicate copies of register of marriages.</li> <li>2. Fees to registrars of births and deaths.</li> <li>3. Costs of register books and forms and rent of register office, inclusive of the expenses chargeable to the Union Common Fund.</li> </ol>	
Col. 4.—“Vaccination Fees” .....	15th.
Sums paid under contract “for the vaccination of all persons resident within the union or parish,” inclusive of the expenses chargeable to the Common Fund.	
Col. 5.—“Expenses allowed in respect of Parliamentary or Municipal Registration, and Costs of Jury Lists” .....	16th.
<ol style="list-style-type: none"> <li>1. “Expenses incurred by the overseers in making out, printing, and publishing the several lists and notices relating to Parliamentary electors, and all other expenses incurred by them in connection with such elections.”</li> <li>2. The expenses of preparing lists of voters at municipal elections.</li> <li>3. The expense of printing lists of persons qualified and liable to serve on juries.</li> </ol>	

TABLE XV.—SYNOPTICAL TABLE, &c.—*Contd.*

DESCRIPTION.	Consecutive Numbering of the Printed Columns in the Return.
EXPENDITURE— <i>Contd.</i>	
Sect. (C).—EXPENDED FOR PURPOSES PARTLY CONNECTED AND PARTLY UNCONNECTED WITH RELIEF TO THE POOR.	
Col. 1.—“Payments under the Parochial Assessments Act (for Surveys, Valuations, &c.), and Loans repaid under the same” ..... 1. The costs of surveys, maps, or plans, obtained for purposes of the poor rate. 2. Costs of partial valuation obtained under 11 & 12 Vict., c. 110, s. 7. 3. Repayment of money borrowed to pay such costs, when they are not paid immediately out of the poor rates.	17th.
Col. 2.—“Money expended for all other Purposes” ..... 1. Salary or poundage to collectors and assistant overseers. 2. Salary of vestry clerks appointed under 13 & 14 Vict., c. 57. 3. The expenses of the election of guardians. 4. The expenses of the removal of poor persons to the parishes of their settlements in England; that is, the expense of orders, maintenance during removal, and cost of conveyance. 5. Expenses incurred for sanitary purposes. 6. Expenses of burial boards and burial grounds. 7. Cost of repairs of parish property where lawfully made. 8. “Costs of providing fire-engines and ladders within the cities of London and Westminster, and liberties thereof.” 9. All other expenses legally chargeable to the poor rates, and which do not properly fall under any previous column in the Return.	18th.
TOTAL EXPENDITURE.	
Aggregate of the sums entered under sections (A), (B), and (C) ....	19th.

*Note.*—The List of References mentioned at page 289 will be found in the  
the “Miscellanea.”

*On the PROVINCE of the STATISTICIAN.*  
By J. J. FOX, *Fellow of the Statistical Society.*

[Read before Section (F), Economic Science and Statistics, of the British Association, Oxford, 2nd July, 1860.]

AMONG the many interesting matters that have impressed me, in listening to the discussions that have taken place in this Section, not one has done so more forcibly than the discrepancy of view that prevails amongst us, respecting the position and limits of the several sciences committed to our care. It is with the view of giving a little clearness to these important points, that I venture to submit the following short paper to your notice.

The title that has been given to our Section, and under which we sit, is "Economic Science and Statistics." Now, if there were any one name that embraced both these particulars, it would probably have been employed. But there is none. Any name that can be thought of, would either include a great deal more, or, on the other hand, would exclude important branches of science which have able cultivators amongst us.

I ask why it is that there is no common name that includes the whole of our investigations;—and reply, that it is because the things included are essentially different in their nature. They fall into two groups. The first group is truly a Science, and a very large one. It is Economic Science, and inquires into the relations of man to man; in the first place as a member of society, as husband, father, friend, and neighbour—this is *Social Economy*; in the second place, into the relations of man as citizen, as unit of a commonwealth; and this, if the name had not by usage been restricted, should be *Political Economy*. The whole subject of the social and political relations of man, should be included in Economic Science. It should embrace on the one hand the great subject of Education; on the other, that of Legislation, and the limits within which legislation should be restricted. I do not mean the *Arts* of Education and Legislation, but the Sciences on which those arts, to be successful, must be based. It may be objected that these departments of human knowledge involve considerations of an ethical character, resting on the ideas of "duty." They do so. But this interpenetration of two mutually coexisting sciences, does not destroy

*Note.*—The following paper must be regarded rather as a "pièce de circonstance" than as an attempt to treat exhaustively the important subjects on which it touches. It was written hastily to meet the differences of opinion that had made their appearance in the Committee of the Section.



the identity of each. In this case, the two departments of human knowledge belong to utterly different categories of science. The first, Economic Science, is concerned with "existence," or belongs to the department of Ontology; the second, Ethics, rests on the idea of obligation, or "duty,"—a term to which Bentham was opposed, and which he replaced by classing such sciences under the new name Deontology. Such interpenetration does not destroy the existence of social and political economy as large sections of the great science of man.\*

But there is a practical difficulty in the employment of the names I have used. It has so happened that one part of human relations, from its vast magnitude and importance, has attracted far more attention than other parts, and been almost exclusively studied. It is that of the results flowing from the exchange of productions between man and man, between country and country, and consequent formation, accumulation, and distribution of Wealth, whether personal or national. To this large and valuable science, branch as it is of the wider division of Anthropology to which I have alluded, the name "Political Economy" is very often restricted. The restriction, though not based on abstract scientific arrangement, has become, perhaps, too confirmed for correction.

Let us consider now the second part of our title—"Statistics." This stands in an entirely different position from Economic Science. It can hardly be said to be a "science" at all. Economic Science can deduce general laws from the facts of man's social and political life. Statistics has no facts of its own; in so far as it is a science, it belongs to the domain of Mathematics. Its great and inestimable value is, that it is a "method" for the prosecution of other sciences. It is a "method of investigation" founded upon the laws of abstract science; founded on the mathematical theory of probabilities; founded upon that which has been happily termed the "logic of large numbers." Resting on these foundations, it is an instrument adapted to aid the inquiry into Truth in a great many distinct and independent sciences.

In making a "method" or instrument a common bond of union between scientific men, we are not singular. The microscope is an instrument for the investigation of science, and is applied to a large circle of objects. It is applied to the sciences of Zoology and Human Anatomy, Physiology and Pathology; to the science of Vegetable Anatomy; to Crystallography and the structure of Geologic rocks. It seems an anomaly to form a Society for the study of things that are small, and yet in practice this bond of union is

\* Query, might not a *slight infusion* of the ethical element be sometimes useful in the disquisitions of the Economist? If it found its way there, perhaps the sarcastic remark of Burke could with less justice be applied to him.

convenient. The Microscopical Society flourishes, not for the sake of the science of the microscope, which is a department of Optics, but for the investigation of the several matters to which the microscope is applied.

That which has been found convenient among those who handle the microscope, has equally recommended itself to the employers of the Statistical method. This "method" is the common bond in Statistical Societies, while the objects, to the investigation of which it is applied, are exceedingly different in their nature. And this must be so, since it is applicable to every subject in which large numbers of similar facts or phenomena can be accumulated and made the basis of reasoning. First and foremost, it is applicable to the great facts of social and political economy, and for this reason Economic Science and Statistics have been linked together. The facts of Economic Science are of all facts the most amenable to the Statistical method of inquiry. But in the second place, it is applicable to the phenomena of birth, death, and the continuance of the species. Now these form a part of Human Physiology. It is impossible they can be correctly considered and interpreted without it. The physiology of a population and the physiology of an individual are parts of the same science, according to any natural division. And yet so different is the method employed in the two departments, that it has been found convenient to separate the former and raise it to the rank of an independent science under the name of "Vital Statistics." Of this, Mortuary Statistics is a branch, which has been cultivated for the sake of its connection with two important arts; for medicine it lays a sound pathological basis by collecting the causes of death;—and it has called into existence an art that has been largely developed of late years—that of calculating from the rate of mortality under various circumstances, the amount of payment that will render the assurance of life profitable and safe.

But there are several other sciences to which the method of large numbers is applicable. Meteorology must, to a large extent, be treated statistically; so must Astronomy, so also Engineering and practical mechanics, and yet we do not commonly regard the labourers in these fields as Statisticians. In their investigations they employ the numerical method, why then are they excluded? The answer must be, that their exclusion does *not* depend on the grounds of strict scientific classification, but partly on the fact of their having been independently studied *before* the growth of the modern Statistical method, and consequently having received a local habitation and a name;—and partly on the feeling that it is *convenient* to employ the term Statistics, only when the method is employed on matters of human life and human interest.

A certain arbitrariness therefore belongs to the term "Statistics."



Being in reality a method and not a science; when it is used to mark a cluster of sciences, it is merely a term of convenience. As it is it brings together some strange bedfellows. Side by side, in the same section, are the pure political economist (whether inductive or deductive, as he hardly knows himself,\* I will not presume to decide), and the humbler cultivator of human physiology by the numerical method. Let us endeavour to bear with one another;—and more than this, let us also consider, while pursuing our own special department, whether there may not be a meeting point on which we may help one another. On one topic we are both interested,—the improvement of our “method.” Our method is an instrument, like the microscope of the observer in biology, like the calculus of the thinker in abstract science. But our method has been much abused; its power has caused it to be employed, not always in the interest of truth, but sometimes to bolster up a preconceived opinion. If it had not been felt to be powerful, it would not have been so much employed; being employed, and that unskilfully, it has often cut the finger of the operator, and what is worse, has itself incurred odium, as an unsafe or misleading guide.

Now, in a great many cases, this arises from an entire misconception of its office. It is not Statistics, but the science to which the Statistical method is applied,—whether that science be Political Economy or Human Biology,—that is answerable for the *inferences* drawn from what are called “Statistical facts.” A large number of phenomena (or “simple facts”) grouped together, form a “Statistical fact;” from this, and from other similar or comparable Statistical facts, inferences may be drawn; but the drawing those inferences belongs to the science to which the Statistical method is applied. The service of Statistics, truly considered, has ceased; it does not ascend to causes, though the compound facts that it establishes may often suggest them.

The whole art of safe Statistics consists in deriving legitimate *Statistical* facts from scattered *Solitary* facts. *In the first place*, these facts must be numerous. No collection that is not large deserves to rank as a Statistical fact. This is a point susceptible of mathematical definition, and the formula laid down by Poisson most satisfactorily expresses the degree of exactness attained by any number of aggregate phenomena. It is most important to bear this in mind; and yet it is very commonly overlooked. Inferences are drawn from a number of facts too small for the elimination of casual fluctuations;

\* This alludes to a debate in a former sitting of the Section, in which Mr. Fawcett attacked Dr. Whewell’s published views on the method of Political Economy, and Dr. Whewell ably defended himself. Of course, if the subject be philosophically pursued, both induction and deduction must enter into the processes employed.



and without this, the Statistical facts derived are almost worthless. Instances of the neglect of this precaution are abundant. Even many cultivators of what is called by courtesy "Statistical science," are hardly aware of the large number of solitary facts that are requisite to make some classes of conclusions justifiable. An instance of this is to be met with in the ratio of the sexes at birth. Inferences from a few thousand births are taken as valid, but are really worth little by themselves. When the observer ascends to tens of thousands and hundreds of thousands, he finds that what he supposed was the manifestation of some law of physiology, sinks into the mere casual fluctuation, and his result approaches that of other observers who have similarly used large collections of facts.

A *second* important principle is this, that *within the class* of facts observed there must be no voluntary selection, and great care must be taken before employing the Statistical fact for any scientific inference, that any involuntary selection be appreciated and allowed for. Examples of the fallacy springing from neglect of these precautions are sure to occur to any one who has been engaged in Statistical inquiry.

A *third* caution springs from the preceding, and is quite as commonly infringed. It is, that the *mode of collecting* two sets of Statistical facts *must be similar* to make their comparison just. I will give an instance of this from the Times newspaper. A year or more ago, in one of its lively articles on a Report of the Registrar-General on the Mortality of London, it noticed the amusing "fact" so called, that out of *so many* annuitants only a very minute number died in the year. Of course, the "Times" did not believe this to be a fact; but the inference it implied, if it did not draw, was this,— "What is the use of your Statistics, if this is the kind of facts you "give us?" Now, the fallacy lay in this;—the *mode of collection* of the Occupation Returns, and of the Death Returns, was quite different. In 1851, individuals returned their own occupations, and each knew very well whether he was an annuitant or a person of independent property, and could, if he chose, return himself accordingly. But the registration of death is made by an informant—generally a servant of the deceased—and neither he nor the registrar who enters the fact of death, can say whether the deceased's independence sprang from annuity or from property. The error arises from putting in comparison Statistical facts collected in two different modes.

A *fourth* caution may be said to belong to all investigation; but it is especially needful in numerical inquiry. It is that of strictly adhering to the exact name of the Statistical fact employed, and not assigning to it another name, derived from some theoretical identity with another Statistical fact. A striking instance of the fallacy

flowing from neglect of this precaution is the following, which is by no means uncommon. In the science of Vital Statistics, the average age at death is erroneously confused with the mean duration of life. Now, these two statistical elements are by no means identical. They are only so under certain conditions of a population, which practically never exist. I know of no population in which the mean age at death is the same as the mean duration of life. The difference is often very great, and the error from the misuse of these names has crept into many scientific papers. I will mention one. A year or two ago, a paper was published in the transactions of a philosophical society of considerable repute, in which, among other errors, the mean age at death of a limited population living in the country, was compared with the mean age at death of the population of the same class (I allude to the Society of Friends), living in towns. The author assumed that these numbers expressed the duration of life in country and town, and found a wonderful shortening in the lifetime of the latter. Here was an evidence of the insalubrity of town-residence, even when combined with all the palliating circumstances of middle-class comfort. But the whole train of reasoning was rotten. The class, whose deaths were collected, have been for many years sending off their young people to the towns, where the said young people marry and have families; while those remaining in the country consist largely of the non-marrying and the old. No wonder the average age at death of the town-residents falls many years below that of residents in the country.

A *fifth* leading principle in our method, is to remember that every Statistical fact has its basis, and that this basis must be constantly kept in view in its employment. The base is to the fact as the denominator to the numerator of a fraction, and gives it its true character and significance. Without the basis it is nothing. I will illustrate my meaning thus:—

That A. B. dies is a solitary fact;

That *so many* individuals die in England in one year, is a Statistical fact of the *first* order;—but,

That *so many* die in England in one year, to every 100 of the population, is a Statistical fact of the *second* order, and obtained by using the population as a denominator.

It is the use of this Base, the number, time, and locality in which such and such facts occurred, that it is most important to keep in mind in Statistical reasoning. I could give instances of amusing blunders arising from neglect of it;—facts placed side by side and compared, when they were derived from quite different bases;—when they were, in fact, fractions with different denominators. No wonder that inquiries conducted in this manner lead sometimes to singular results.



I will now conclude this notice of some of the sources of fallacy that are of frequent occurrence in the use of this modern and truly valuable instrument of investigation. I imagine you will agree with me as to its importance and as to the principles that should preside over its application. But I apprehend that you are not prepared to admit my views as to Statistics not being a science in itself (its position as a section of mathematics or of logic excepted). I can only say that no attempt to define it as a science, that I have met with, has been successful. If it be made, as is commonly done, something coincident with what I have called "social economy," it will exclude many departments that are universally admitted to belong to it.

In treating the subject hastily at the present time, I feel that I have done it most insufficient justice. The expression of thought on such abstract subjects as the classification and mutual relation of the sciences, demands considerable time and explanation. But the views have not been suddenly adopted, although it is only the discussions of the last few days that have induced me to put them on paper. I hope that they will promote our friendly co-operation, by showing the common ground that connects the pure Economist and his humbler Statistical brethren. Both he and they, when they leave the lofty heights of abstract truth, and take cognizance of the phenomena to which their science relates, make use of the same tools, though they may quarry in very different formations. It is not so much any affinity that exists between the matters on which they work that links them together, as it is their using the same instruments,—carving, by the aid of laborious induction from numerical facts,—here a foundation stone,—here a pillar,—here a turret,—each adapted for its place in the One majestic Building of Science.

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*On the APPLICATION of a NEW STATISTICAL METHOD to the ascertainment of the VOTES of MAJORITIES in a more exhaustive manner. By THOMAS HARE, ESQ., Barrister-at-Law.*

[Read before the Statistical Society, 19th June, 1860.]

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I.—Introduction.

UPON an examination of the working of our representative institutions in early times I think we are led to the conclusion that the process of counting numbers was rarely resorted to, either in local elections or in the assembled council of the nation. All important public movements were determined less by any such calculation than by the force and weight of individual character, energy, or power. If there were competent leaders it was not doubted, that the multitude would follow. This is the substance of what Bacon thinks it proper to make known of his views of political science, when, declining to reveal the secrets of high policy and the royal art of government, he refers us to the observation of Cato the Censor, that it is easier to drive a flock than a single sheep; for if only a few are brought into the right path the rest will follow of their own accord. The forms and structure of our early parliaments all tend to show that relative numbers was not the prevailing idea as the measure of representation. Personal influence, and not the number of voices, predominated. The summons to the sheriffs directs them to cause the knights to be sent with full powers (*cum plenâ potestate*) for themselves and the county; and a statute of 1405 directs the sheriff to return the names of the persons chosen “under the “seals of all them that did choose them.” The knights, citizens, and burgesses, when, elected, were apparently regarded as the proxies of those by whom they were nominated, and as having a relative

importance or value in no respect determined by the number of heads. Thierry observes that they acted as diplomatic agents, the number of whom on either side was unimportant to the contracting parties. In those times all kinds of superiority,—the qualities of counsel and command,—were elicited by the direct and effectual tests of personal contact and recognition. The problem of politics in all times must be the method of making known and giving their due place to such superiorities. In our own day, when society is no longer exposed to its early emergencies, difficulties, and dangers, and people have become self-dependent as well in mind and sentiment, as in their external relations with one another; when the population of a single city is probably equal to that of the kingdom a few centuries ago,—when the intercommunication of persons and of material wealth is rapid and incessant, and the interchange of thought almost instantaneous, we should surely be wanting in practical wisdom if, in seeking to elicit and give their due place to all contemporary superiorities, we do not avail ourselves of the new facilities of instruction and communication which have superseded their former manifestations. If the spirit of the age refuses to place in hereditary or in official hands the selection of its political organs, our alternative is to employ, in the service of the constitution, all the means of appealing to thought and judgment which we now possess, especially our ubiquitous literature, and thereby to invoke the aid of all the virtue and knowledge which is dispersed throughout the empire in the task of making known and putting forward, as their fittest representatives, those whom the concentrated result of intelligence and labour shall shew to be the most worthy.

In adapting our representation to the present state of society it will be found that we need to create very little that is new. Liberation from restrictions no longer suited to our condition is the great necessity. A statute of Henry V, enacted that the citizens and burgesses should be resident, and dwelling in, and free of, the cities and boroughs choosing them. There may have been good reasons in the fifteenth century why this should be, but the restriction gradually fell into disuse, and was repealed. It is in thus removing obstacles whereby every single elector can have more freedom of action that amendment is required. Every scheme of representative constitution will be found to follow one of two leading principles,—it mainly regards the powerful action of numbers, masses, or classes of persons, and deals with individuals as purely subordinate to that first object; or, on the other hand, it labours first to give effect and scope to individual action, and trusts to the operation of personal effort to promote the higher interests of all classes, and thereby of numbers and majorities. It is in the latter direction,—that of individual effort,—that the genius of what we term the Anglo-Saxon



race has always been displayed, as the incalculable results of their voluntary association in the old and new world bear witness.

In this paper I propose to explain several applications of a discovery in method whereby the individual electors of representative bodies are relieved from all unnecessary restrictions. I use the word *discovery* in the sense in which we apply the word to any invention or new process whereby a desired result is better or more effectually obtained, and because I have not found any notice of such a principle earlier than 1839. Perhaps when we consider the peculiarity of our Parliamentary system, and how little it has entered into the consideration of our political men to look for the essential qualities of real representation, it is less extraordinary that so natural a thought should so lately have occurred for the first time. Impressed with the conviction that the vast majority of mankind must be the more uninstructed in mind, and the more liable to be governed by direct sensation and impulse, they have endeavoured to establish compensations and balances to guard against the force of undisciplined, ill-disciplined, or misguided numbers. Instead of looking for these balances and compensations in the better nature and the higher capacities of man, and in a frame of polity by which that nature and those capacities would be evoked, they have been pursued by means of empirical classifications of persons, geographical divisions of places, and other artificial expedients, which appear on a superficial view to act as a sort of clog on the operation of large masses, and at the same time give increased force and effect to the lower motives by which many are liable to be actuated or controlled. So far from being a security, these clogs are more likely to become dangerous weapons for the numerical majorities, as well as for the nation. To the extent in which every man to whom a vote is given can be induced to engage himself in selecting as his representative his own highest type and ideal of excellence, his own moral and intellectual capacities will be in process of development, and there is just ground for hope that the representative body will contain the real or reputed worth of the age and country, and that ignorance and error will be disabled and disarmed.

## II.—*Modern System of Partitioning Districts solely for Electoral Purposes.*

All the important steps taken during the last thirty years in the development of representative government in Europe and America appear to have proceeded on the notion that the only practicable course is that of enabling every elector to vote for all the representatives to be chosen, modifying this power in some cases so as to render them less the nominees of one particular class or of one



general paper or ticket, by dividing the city, county, or district into wards or electoral divisions, and assigning a small number of representatives, or even one to each division or ward. This was the system pursued in the Reform Bill of 1832—twenty-five counties, to which additional members were given, were severally divided into two parts, each to return two members, instead of giving the four members to the entire county, and the previously unrepresented portion of the metropolis, instead of being added to ancient divisions, was formed into the distinct boroughs of Marylebone, Finsbury, Tower Hamlets, Lambeth, and Greenwich. Under the Municipal Corporation Act of 1835, corporate towns were divided into wards for the election of town councillors, every ward being entitled to elect a certain number. These divisions were nearly all of them novelties, and perfectly arbitrary, and they, in fact, constitute electoral districts, or districts for electoral objects only.

Since this legislation in England, the principle of the Reform Bill and the Corporation Acts, as to electoral districts, has been adopted and pursued, even more rigidly in the United States of America. In Store's Commentaries, published in 1833, it is stated, of the laws for the election of representatives in Congress, that "there is no uniformity in the choice, or in the mode of election. In some States the representatives are chosen by a general ticket for the whole State, in others they are chosen singly in districts, in others they are chosen in districts composed of a population sufficient to elect two or three representatives, and in others the districts are sometimes single and sometimes united in the choice. In some States the candidate must have a majority of all the votes to entitle him to be deemed elected, in others it is sufficient if he has a plurality of votes." These diversities which shew how entirely the electoral arrangements had been the result of accident rather than of preconceived design have since given place to uniformity. A law of the federal government of the 5th June, 1842 (c. 47), made in accordance with a power reserved to it in the constitution of the United States, provided "that in every case where a State is entitled to more than one representative, the number to which each State shall be entitled under this apportionment shall be elected by districts composed of contiguous territory, equal in number to the number of representatives to which the said State may be entitled, no one district electing more than one representative." This law must have been carried into effect by Acts of the State legislature, and I accordingly find that in the State of Massachusetts an Act was passed on the 16th of September, 1842, dividing that commonwealth into ten districts, each of which should elect one representative, for the twenty-eighth and each subsequent Congress, until otherwise provided by law. A permanent law for the apportionment of representatives

was made by Congress on the 23rd May, 1850, in which I do not find the provision of the law of June, 1842, repeated,—whether it was omitted from any change of policy in this respect I am unable to say. As the number of representatives to be elected by each State is subject to variation, the necessity of a geographical re-partition of electoral districts must be a constantly recurring inconvenience, requiring, in fact, something like a new survey of the country every ten years, for the mere purpose of an electoral apportionment, which it will be seen may be accomplished with infinitely greater accuracy and public benefit by a simple arithmetical operation.

A slight consideration of the consequences of the principle thus pursued, is sufficient to shew that it is the cause of most of the evils and infirmities of representative government, or, at least, that most of these evils and infirmities would be obviated if the amendments were made in the direction which has been pointed out by more recent investigation and discovery.

When a borough, or city, or county has been partitioned into electoral districts within which the choice of representatives must be confined to one or a small number of the aggregate body which is to be elected, and that choice is vested in a sole majority of the electors of the district, the door is immediately opened for all the vices of which political elections are susceptible, and the action of all the more valuable elements of virtue and intelligence to which it is desirable to give the most perfect scope and influence, is in a proportionate degree discouraged and impeded. A few active, unscrupulous, and intriguing persons are able by dealing with the more ignorant, politically indifferent, or corrupt, to forestall or usurp the expression of the popular voice, whilst the more sober, thoughtful, and unconspiring electors are not heard. Bribery, public-house influence, intimidation, false statements, calumny of opponents, and all the arts for gaining the public ear and misleading and inspiring with prejudices the popular mind, are brought into play. The union of numbers sufficient for success is not the result, necessarily, of any mutual sympathy or confidence, except of that noxious sort which arises from a predominant desire to overcome an opponent. The prevailing object is not to secure the approbation of the good and wise, but only of such numbers of the constituency as shall be sufficient to extinguish the voices and opinions of any apparent minority or minorities, and therefore it is less necessary, as it is more difficult, to appeal to reason, than to prejudice and the popular cry of the hour. I say any *apparent* minorities, for it will generally happen that if united, and if it were not for the very qualities which would render their political action more valuable,—that critical appreciation of differences which is the common mark of intellectual aptitude and judgment, but which very sense of difference makes it all the more difficult or impossible



for them to combine,—the apparent minorities would be in truth the real majority. Even if this were not so, if in electing the representative of a constituency of 2,000, the extinction of the judgment, discretion, and will of 999, by a majority of 1,001 was only an extinction of the exact proportions of such qualities as the smaller number contains, when compared with the larger, it might be confidently said that there is a waste of valuable material in the process of the election, to which no operation in modern labour,—no application in modern art, affords any parallel,—a waste which in physical processes no labour would be spared to avoid, and which would be regarded as still more intolerable if, in the waste, as in this case, were included the very best of the material which was to be employed.

III.—*Apportioning Representatives to divided Majorities, instead of giving them to the aggregate Majority only, in each locality.*

Other methods exist of apportioning members to constituencies without disturbing or breaking up any ancient or naturally-formed boundary, and without creating any new or artificial district or division; and these methods are, moreover, not only far more exact in their results than any geographical partition can be, but they accomplish every legitimate object of such a partition more perfectly, whilst they are unaffected by the movement or shifting of population from one site to another. These may be explained by the case of the metropolis. At the time of the Reform Bill it was proposed to add to the eight members for London, Westminster, and Southwark ten other members, for the five other metropolitan boroughs then created. Instead of creating the five new boroughs the ten members might have been added to the existing divisions,—those north of the Thames to Westminster, and those South of the Thames to Southwark,—or which would have been a still better and more natural arrangement, having regard to the numbers who, resorting to their offices or warehouses in the City, yet reside in the other districts,—the whole metropolis might have formed one constituency, returning eighteen members. These eighteen members might have been equitably apportioned amongst the electors by the operation of either of two rules:—

1. That no elector shall vote for more than one candidate in the same constituency.

The effect of this rule in the metropolis in the case last supposed would be to ensure the representation of eighteen different classes, or divisions of electors, and therefore possibly of eighteen different sections of thought and opinion, instead of the representation of none other than the eight majorities which arise out of the present distribution. This rule may be distinguished by the name of “single voting.”



2. That every elector be at liberty to give eighteen votes, and to distribute them at his will,—either one or more to several candidates or all to one candidate. This plan which is said to have been first proposed by Mr. James Garth Marshall, may be called “cumulative voting.” Except that this would introduce more figures into the calculation, its effect in permitting the representation of sections of thought and opinion, not found in the large majorities now predominant, would be nearly the same as in the method of single voting.

A third method should be mentioned,—that introduced in the Reform Bill of 1854, whereby, in cases where three members were to be chosen every elector was restricted to a vote for no more than two. This limitation would have been a great improvement on a system which allows every vote to be given for all the members, but without more than one for any candidate. The weakness of the principle is the absence of any sound reason for stopping at two-thirds, or for restricting its application to cases in which the number of members is divisible by three. It will be sufficient at present to confine our attention to the first two methods.

The Reform Bill, it has been observed, divided twenty-five counties, to which it gave additional members. Either of the two rules adverted to would have obviated the necessity of such a division. Cheshire and Cornwall, instead of being separated into east and west, and north and south, might each have returned four members, and four classes or sections of opinion in each county might have been represented.

In all these cases there is no doubt that there would be still minorities, of greater or less magnitude, unrepresented, and the system may therefore be more accurately called that of “the representation of *divided majorities* than of minorities.” The minorities which remain after an equitable apportionment of representatives to majorities, are dissentients on the ground of some principle of importance and value, or they are not. If they are not, this exclusion is little to be regretted. If they are, it is open to them to propagate the truth on which they insist, and secure the adhesion of enough to make up at least one majority, and it is in this sense that it may not unjustly be said that “a minority can constitutionally obtain representation only by becoming a majority.”

#### IV.—*Objections to an apportionment amongst divided Majorities, or to any other representation than of the aggregate Majority.*

The propriety and justice of the principle that a representative assembly should, as far as its numbers will permit, accurately express the chief varieties of thought and opinion which are found in the aggregate body it professes to represent, are so obvious that one is surprised that it does not command the immediate assent of every

candid mind. That the smaller number should not possess a weight greater or equal to that of the larger number,—except such weight as they may win for themselves by any superiority of virtue or intelligence they may possess,—must be admitted, but that the smaller body, even having regard to numbers only, should have a weight proportioned to its relative number, would seem to be a necessary principle and safeguard of public and individual freedom. In fact, it is perhaps impossible to find any publication in which the contrary proposition has been seriously argued. Mr. Mill\* says,—  
“ I am inclined to think that the prejudice which undoubtedly exists  
“ in the minds of democrats against this principle arises only from  
“ their not having sufficiently considered its mode of operation.—  
“ There is no true popular representation if three-fifths of the  
“ people return the whole House of Commons and the remaining  
“ two-fifths have no representatives. Not only is this not govern-  
ment of the people, it is not even government by a majority of the  
“ people ; since the Government will be practically in the hands of  
“ a majority of the majority.”

In addition to the absence of a just conception of the principle itself, I think that another and not unreasonable ground of hostility to it is the uncertainty of action with which its operation might be attended, and to correct which it stands in need of a subsidiary law. I may illustrate this by supposing that in the West Riding of Yorkshire there were four members to be chosen, and that the constituency contained in the aggregate a large majority of one political party. It is possible for that majority, in giving single votes, to concentrate so great a number of votes upon one or two popular candidates that the opposite party might, owing to this waste of strength, acquire a share of the representation out of all proportion to their aggregate numbers in the constituency. No party arrangements would be sufficient to guard against this result where the electors are spread over so large an area ; and if this were otherwise, no individual should be left at the mercy of party arrangements. Again, in the City of London, if only one vote be given by each elector, it is possible that out of the 20,000 votes 10,000 might vote for one candidate, 6,000 for another, and the remaining 4,000 votes would then suffice to return two members of opposite political opinions, even, though, as the hypothesis is, such opinions be not held by a fourth of the constituency. Results may, in fact, be supposed, even more extravagant, and yet not impossible. In order to obviate such an injustice, and to enable electors of every party and opinion to act with a certainty that their votes will be rendered, as far as possible, effectual, another and a subsidiary rule or law is

\* “ Thoughts on Parliamentary Reform,” p. 26, 2nd Edit., Parker, 1859.



necessary, in addition to a law which should prescribe either single or cumulative voting; and this subsidiary law will be found entirely to obviate the objection by introducing "*contingent votes*."

V.—*Method of Contingent Voting.*

Any possible waste of votes by the concentration of an excessive number on one or more popular candidates, may be avoided by prescribing a *maximum* of votes to be appropriated to any single candidate, and by enabling every voter to give contingent votes for other candidates. The *maximum* would properly and accurately be the product or quotient of the number of voters who poll at the election, divided by the number of seats to be filled. Applying this subsidiary law to an election of four members, say for the West Riding of Yorkshire, in which we will suppose 27,000 voters to poll, that number divided by four gives a quotient of 6,750, which would be the maximum, and the persons and parties supporting the popular candidates may be certain of not losing a single vote unnecessarily, by being enabled to transfer such of their votes as shall be the surplus of one candidate, to any of the others. The votes might, for this purpose, be recorded by the poll clerk in the form shewn in the Appendix, Table V.

The votes should be recorded in books or on sheets, entering a certain even number on each page, every entry or vote being numbered as in the first column (Table V.), in a series of numbers running consecutively through all the books prepared for and used at the election,—the next column contains the names and addresses of the voters, opposite to each of which, under the head 1, is placed the name of the candidate for whom the vote is given, and if the elector desires to transfer his vote to the other or either of the other candidates, in case the first should not need it, the names of such other candidate or candidates successively will be placed in the columns, 2, 3, and 4, four being the supposed number of members. If none of the candidates should poll a number of votes equal to the quotient, or as to any of them that fail to do so, the result must be determined as at present, by their comparative majorities, viz., those at the head of the poll will be returned.

In the case which Table V supposes there are eight candidates distinguished by the letters A to H. It exhibits the record of twenty votes, B and F appear to be the popular candidates and have each polled six votes, C and G have polled each two votes, and A and H each one vote. Now as the quotient or maximum produced by dividing twenty voters by four members, is five, the supporters of B and F, besides returning those two candidates, are able to transfer their surplus votes to other candidates.

The first question is which vote shall be appropriated definitively



to B or F, and which shall be transferred to the other candidates, if any, for whom they have respectively been contingently given.

The first rule of appropriation is to take all such votes as are given for that particular candidate, only—such as we now call plumpers—where in the proposed system the voter has not provided for any contingent disposition of his vote. Thus, No. 113, in Table V would be first appropriated to B; then, secondly, the votes which provide for only one other contingency, as No. 104; then, thirdly, the votes which provide for only two contingencies, as Nos. 105, 110, and 116. This makes up the five votes, and it will follow that the vote for B, which will be transferred, is No. 101, which then becomes available for G.

The process of ascertaining the state of the poll, and the particular votes which are to be appropriated or transferred is rapidly worked out by a tabular book (Appendix, Table W), which can be filled up almost contemporaneously by a second or computing Clerk, and in which a column is appropriated to each candidate, according to alphabetical arrangement. In appropriating the votes for F, according to the same rules, it will be immediately seen by referring to the column in which votes for him are entered (Table W), that No. 106 must be taken first, and then Nos. 108, 111, and 117. The principle of this rule of appropriation is that of giving an effect and value to every vote proportioned to the degree of thought and labour which the elector has bestowed upon it, as manifested by the number of contingencies for which he has taken care to provide. We now perceive, in the case of candidate F, that another rule is necessary to determine which of the votes, Nos. 109 and 115, shall be appropriated to him, and which shall be transferred to the next candidate whom each voter has preferred, each having provided for the same number of contingencies, and the vote in one case going on to C, and in the other case to G. All that is necessary is that the order of appropriation, whatever it be, shall be distinctly prescribed beforehand, so that it shall be purely mechanical on the part of the returning officers, and that the rule shall afford to every elector the same chances or probabilities as to the application of his positive and contingent votes. An unexceptionable rule would be this—that the votes shall be taken in rotation, one from each page or sheet of the poll book or the tabular register at each polling place (which places may be distinguished by consecutive marks or numbers as A, B, C, &c.), and beginning at the last sheet or page taken at each of such places, and at the highest number on each page (as, for example, taking first 115 for F), proceeding thence to the lowest number, and following this rotation until the maximum or quotient of votes necessary for the candidate is completed. It will probably be found that a rule for appropriating, *cæteris paribus*, the later votes first,

will be desirable as counteracting any tendency that may otherwise grow up, to hang back from the poll to the later hours, for the advantage of previously ascertaining who are elected. The name of the candidate whose quotient is complete, may then be cancelled by a stamping instrument, on all the remaining votes given for him, and the next contingent votes of such electors become their actual votes.

The change in the state of the poll for the remaining candidates, by the transfer of the surplus votes of B and F, will be exhibited in the further reduction of the tabular book, shewn in the Appendix, Table X.

The entire result is as follows :—

B .....	5 votes (or the maximum) and one surplus.
F .....	5   "                   "                   "
C .....	3   "
G .....	3   "
A .....	1 vote.
D .....	1   "
E .....	1   "
H .....	1   "

And B, F, C, and G are therefore returned. Supposing the twenty votes to be converted into 27,000 votes, distributed in the same ratio, the poll would be thus announced :—

B .....	6,750 (or the maximum) and 1,350 surplus.
F .....	6,750                   "                   "
C .....	4,050
G .....	4,050
A .....	1,350
D .....	1,350
E .....	1,350
H .....	1,350

I have adapted the Tables V, W, and X, in the Appendix, to an exhibition of the process of single voting in large constituencies, with the aid of the subsidiary or correcting rule as to contingent votes. There is, however, much prejudice against single voting in constituencies accustomed to a plurality of votes. Many of such voters, if restricted to one vote by a new law, will be apt to consider themselves wronged, as those persons did who, in the last century, complained that they were robbed of eleven days of their lives by the adoption of the Gregorian Calendar. Single voting, it has been said, will be unpopular, because it seems to cut down the privileges of the voter, while cumulative voting, on the contrary, extends them. It is yet not improbable that the power of contingent voting for a larger number of candidates would, by most persons, be esteemed an ample compensation; but in case this should not be so, it is desirable to



show that the same certainty of action, by means of the subsidiary law referred to, can be obtained in cumulative voting. It requires only an additional column in the Poll Clerks' Record, to insert the number of votes given for each candidate. (See Appendix, Table Y.)

It will be seen by the variety in the manner of distributing the votes (Table Y) that the system affords scope for the manifestation of every degree of preference which the elector may entertain for particular candidates. "Why," observes Mr. Mill, "should the fact of preference be alone considered, and no account whatever be taken of the degree of it? The power to give several votes would be eminently favourable to those whose claims to be chosen are derived from personal qualities, and not from their being mere symbols of an opinion. For if the voter gives his suffrage to a candidate in consideration of pledges, or because the candidate is of the same party with himself, he will not desire the success of that individual more than of any other who will take the same pledges, or belongs to the same party. When he is especially concerned for the election of some one candidate, it is on account of something which personally distinguishes that candidate from others on the same side. Where there is no overruling local influence in favour of an individual, those who would be benefited as candidates by the cumulative vote would generally be the persons of greatest real or reputed virtue or talents."\*

A slight modification of the rule for appropriating votes is necessary to this form. After taking the votes of electors who have given no contingent votes, the next votes to be appropriated should be those of electors who have distributed their contingent votes amongst the smallest number of candidates (not the smallest number of contingent votes), the number of candidates measuring, *primâ facie*, the amount of intellectual effort. If the last votes taken for D should be those of Voter No. 105, and D should require only two of the four votes to complete his maximum, the remaining two would be applicable for C.

Progress has been defined to be the development of order, a maxim which will be admitted by many who do not accept all the philosophy which has assumed this definition for its motto. We see, however, that by the simple process which has been suggested, precision and order in the individual exercise of the franchise is substituted for the uncertainty and confusion which now prevail. The amount of judgment and discretion which each voter may employ is limited only by his own capacity, and his field of choice; and that field of choice, which every geographical division of constituencies more and more narrows, is enlarged by every abolition of

\* "Thoughts on Parliamentary Reform," p. 29, 2nd Edit., Parker, 1859.



the artificial boundaries which prevent union and circumscribe mind. Districts and wards for electoral purposes utterly fail in enabling distinct interests or opinions to be represented, for at this day people do not reside together in certain quarters, or combine their property territorially according to their opinions. The only way of securing the representation of special interests or opinions is by permitting, as far as possible, those who have or hold them to act together. New forces or motives that tend largely to elevate and purify the representative system are thus introduced. Individual intelligence recovers that power and weight which is lost in the systems which permit individuals to be swamped by numbers. It is in that modification of the electoral power which considers the individual before it deals with the masses, that the true strength and excellence of representation resides. In order to stimulate personal effort, the advantage of the larger areas over the smaller districts or wards is evident. The greater the area and the corresponding number of representatives to be chosen, the greater will be the number of candidates, and the opportunity of every elector to find amongst them one or more with whom he sympathizes, and in whom he can repose confidence. The character of the election is thus entirely changed. It becomes rather an intellectual and generous contest, in which every class and party seeks to put forward the best and noblest exponent of its opinions, and it is no longer the struggle of any assumed majority to exclude the rest. If instead of dividing boroughs into wards under the Municipal Corporation Act, the principle of single voting had been adopted, giving to every voter the opportunity of voting contingently for as many of the town councillors as he might think fit, property and intelligence would have been everywhere represented in the corporations, and it would not have been possible even for the Act of 1850 (13 & 14 Vict., c. 99) to have produced the ill effects apparent on the Report of the Select Committee of the House of Lords, and the evidence taken before it. (1859-46.)

VI.—*Application of the Method to equal Majorities in all Counties, Cities, and Boroughs.*

I have hitherto adverted only to improvements in our representative system for which the political world seems ripe, and which many statesmen are more or less directly seeking. The method which I have explained is, however, capable of far more extensive development. It is not too much to anticipate that at no distant time statesmen will be shocked at the unmeaning and puerile anomalies in the representation disclosed in the statistical statements in the last volume of the transactions of the Society; that it will be seen that the adoption of population as a basis is impossible, without rectifying

an inequality which gives one member to 22,000 inhabitants of boroughs, and only one to 66,000 inhabitants of counties,—that it is impossible to assert the value and justice of an impartial distribution of political privileges as the ground of enfranchisement, and assert it in the same breath as the ground of disfranchisement,—that such a principle cannot be consistently put forward as a reason for excluding 332 market towns in England and Wales, having an average population of nearly 5,000 persons, from the privileges which are given to 248 boroughs, or far less than half of the towns in the same portion of the Kingdom. The moral evil of creating such monopolies of political privileges with all their consequent temptations to the poor, the weak, and the indifferent, who share in their exercise, may be more generally felt. It may not always be thought that the preservation of constituent bodies varying in numbers from 200 to 20,000 is the depth of profound policy. We may perhaps look forward to a time when, in gathering the exponents of the national opinion, sentiment, and will, the electors may not be encumbered with the difficulties and obstacles of a period when the want of roads almost prevented communication between remote places, when writing and printing were generally unpractised, and their use little known. Instead of considering it a sagacious policy to compel large numbers of voters to travel unlimited distances if they desire to vote, a time may come when they may be permitted to use the post-office near their dwellings. The nation, in its electoral laws, may one day recognize that some knowledge of letters has been generally diffused, and may receive or invite, as valuable aid in the exercise of electoral powers, by means of papers deposited or transmitted, the votes of its energetic sons, who, having their homes in Britain, are absent, conducting maritime enterprise, expanding commerce, or laying the foundations of colonial empire. Statesmen may endeavour to inspire the political life of the nation with a more comprehensive and noble spirit; they may desire to make it the study and delight of every subject of these realms to discover and attach himself to all that his generation contains of greatness or eminence, to give due play to all his sympathies, whether with historic association, intellectual power, or moral energy, and to this end to afford him a choice of representations as wide as the nation can afford. With this view I have developed the plan of simple and contingent voting into a larger scheme, which combines all the great and essential elements of personal, local, and national representation. The length to which this paper has extended, enables me to do little more than refer to the work in which this scheme is set forth and explained.\* I will but simply state its broader features.

\* *Treatise on the Election of Representatives, Parliamentary and Municipal*; by Thomas Hare. Longmans, 1859.



It proposes to furnish every elector, at a general election, with a copy of an official gazette, stating the names of all who are candidates for seats in Parliament, and the town or constituency which each especially addresses, each candidate having paid 50*l.* for registering his candidature, and being free from all other pecuniary liabilities. It then enables every elector to nominate *for his own constituency* any of such candidates, on a document or voting paper, in the form shown in the Appendix (Z), adding, in numerical succession, as many candidates as he will, no vote being taken ultimately for more than one person, and all the substituted names being therefore contingent votes, as explained in the foregoing examples.

This wider application of the method requires some additional, but simple, machinery. The quotient, *or maximum*, of voters sufficient for the election of a representative, cannot be determined by local computation, but must be the product of the number of voters who poll throughout the kingdom, divided by the number of members of the House of Commons.\* The voting papers must be carried temporarily for computation to some central spot, which should be selected with reference to convenience of access from all the chief seats of population. The returning officers might appoint the most competent of the polling clerks to have charge of the voting papers, assist in the process of computation and appropriation, and to carry back the voting papers to every borough and locality, after every paper has been endorsed by the Registrar-General with the name of the member to whom it is appropriated. The rules for appropriating votes will be substantially the same as I have already mentioned with reference to the first and contingent votes in the Tables V, W, and X (Appendix). The voting papers appropriated to each candidate will be, first, those containing the smallest number of unchosen names, adopting a rotation as to numbers and polling-places corresponding with that which I have already indicated. Another rule of rotation will be necessary in order to determine as well between localities as between polling-places, and this rule would properly be that the votes given for the candidate in the constituency for which he offers himself should be taken first, and then the nearest surrounding constituencies in succession, according to previously-settled tables of proximate localities, thus giving all possible operation to local attachments.† After the number of the House has been as nearly completed as may be possible from the names which stand first in every voting paper, it

\* In the Treatise referred to (pp. 29, 30), it was proposed to ascertain the quota by reference to the number of electors *on the Registers*. Subsequent investigation and discussion have led to the substitution of the numbers that actually poll at the election, as the dividend.

† Treatise, pp. 208—210.



will be necessary to reduce the number of candidates by stamping out the names of all those who have fewer votes, contingent or otherwise, than (say) half of the *maximum* or quotient, which will bring up others of the contingent votes, and thereby add to the numbers returned. The Registrar-General, to whom the control of this operation is entrusted, can then proceed, by an alternate or balancing process to complete the House, by expunging one by one the names of the candidates having the smallest number of votes above the moiety of the quotient, and diminishing, as it shall appear to be necessary, the maximum, by withdrawing at each step one vote from every appropriated quotient (taking first, in a rotation the reverse of that previously adopted in the appropriation, the vote which has provided for the *greatest* number of contingencies), and so proceeding as to leave ultimately the smallest residue or number of unappropriated papers, or in other words of unrepresented voters.\*

The effect of this arrangement is to group every town and constituency in the kingdom, and every section of voters, by the just and attractive principle of voluntary association, in which all will have the exact weight to which their numbers and intelligence entitle them, and will not be affected by whatsoever changes may hereafter take place in the seats of population. Every member of the House of Commons will represent an unanimous constituency. The leaders of public opinion will be there, with those who most perfectly express it.† Separate tables or lists would shew the names of the constituents whom every member actually represents. The electoral results exhibiting the various preferences which every county and town has expressed—the electors by whom every member is supported—the numbers which, besides these, have expressed their willingness to vote for him, and the classes of which they are composed, will afford such materials for future statistics, illustrating the condition and progress of society as the history, of mankind has not hitherto supplied.

In this system it will be seen that there can be no swamping of persons, or opinions, or classes, or interests. It leaves every voter to act as his feelings or his interests may dictate. Property will be represented, by representing every possessor of property, far more effectually than by a struggle of one kind of property against another. Education and intelligence will be represented by the

\* This process slightly differs from that which was proposed by Laws xxv and xxvi (pp. 214—21) in the Treatise. The author had then contemplated another mode of completing the numbers of the House. (See Treatise, p. 324).

† On nothing connected with modern political society is it more important that enlightened consideration should be bestowed than on the method of ascertaining "public opinion," as to which the Legislature is liable to such serious illusion. The enquiry upon which the author of this paper ventured (Treatise, p. 276 *et seq.*), does but touch the margin of the subject.

representation of every man of education and intelligence. The professional, agricultural, commercial, and working classes may be represented by their chosen exponents. Every locality will have its special representatives in the members who have received the greatest number of votes in the county or borough, but local divisions become rather, as Bacon says, lines and veins than sections and separations. All contribute to the national representation, which will be as perfect as the understanding and patriotism of each succeeding age can make it.

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APPENDIX.

(V.)—Poll Clerk's Record.

Consecutive Numbers in the Poll Book.	Name and Address of the Voter.	Candidates for whom first and Contingent Votes given.			
		1.	2.	3.	4.
101	.....	B	G	H	D
102	.....	A	F	G	—
103	.....	G	F	B	—
104	.....	B	D	—	—
105	.....	B	D	E	—
106	.....	F	G	—	—
107	.....	H	E	D	B
108	.....	F	G	C	—
109	.....	F	C	A	G
110	.....	B	D	H	—
111	.....	F	G	A	—
112	.....	C	A	F	G
113	.....	B	—	—	—
114	.....	E	H	—	—
115	.....	F	G	C	A
116	.....	B	D	E	—
117	.....	F	G	A	—
118	.....	C	A	F	—
119	.....	D	E	—	—
120	.....	G	C	F	—

(W.)—Tabular Book.

A.		B.		C.		D.		E.		F.		G.		H.	
Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.
102	2	101	3	112	3	119	1	114	1	106	1	103	2	107	3
—	—	104	1	118	2	—	—	—	—	108	2	120	2	—	—
—	—	105	2	—	—	—	—	—	—	109	3	—	—	—	—
—	—	110	2	—	—	—	—	—	—	111	2	—	—	—	—
—	—	113	—	—	—	—	—	—	—	115	3	—	—	—	—
—	—	116	2	—	—	—	—	—	—	117	2	—	—	—	—

(X.)—Tabular Book (after the return of Members having Surplus Votes).

A.		B.		C.		D.		E.		F.		G.		H.	
Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.	Voters No.	Con- tin- gent Votes.
102	2	—	—	109	2	119	1	114	1	—	—	103	2	107	3
—	—	—	—	112	3	—	—	—	—	—	—	120	2	—	—
—	—	—	—	118	2	—	—	—	—	—	—	101	2	—	—



(Y.)—Poll Clerk's Record.—Cumulative Voting.

Con-secutive Numbers in the Poll Book.	Name and Address of Voter.	Candidates for whom First and Contingent Votes are given.							
		1.		2.		3.		4.	
		Name.	Votes.	Name.	Votes.	Name.	Votes.	Name.	Votes.
101 {	.....	C	1	C	4	D	4	A	4
	.....	D	1	—	—	—	—	—	—
	.....	E	1	—	—	—	—	—	—
	.....	A	1	—	—	—	—	—	—
102 {	.....	B	2	G	4	H	4	F	4
	.....	G	2	—	—	—	—	—	—
103 {	.....	B	4	H	4	G	4	F	4
	.....								
104 {	.....	B	1	—	—	—	—	—	—
	.....	H	1	—	—	—	—	—	—
	.....	F	1	—	—	—	—	—	—
	.....	G	1	—	—	—	—	—	—
105 {	.....	D	4	C	4	—	—	—	—
	.....								

Computing Table, exhibiting instantaneously the state of the Poll, as above, in Cumulative Voting.

A.		Candi- dates Contin- gently Voted for.	B.		Candi- dates Contin- gently Voted for.	C.		Candi- dates Contin- gently Voted for.	D.		Candi- dates Contin- gently Voted for.
Voters.	No. of Votes.		Voters.	No. of Votes.		Voters.	No. of Votes.		Voters.	No. of Votes.	
101	1	3	102	2	3	101	1	3	101	1	3
—	—	—	103	4	3	—	—	—	105	4	1
—	—	—	104	1	—	—	—	—	—	—	—
1	1	—	3	7	—	1	1	—	2	5	—

E.		Candi- dates Contin- gently Voted for.	F.		Candi- dates Contin- gently Voted for.	G.		Candi- dates Contin- gently Voted for.	H.		Candi- dates Contin- gently Voted for.
Voters.	No. of Votes.		Voters.	No. of Votes.		Voters.	No. of Votes.		Voters.	No. of Votes.	
101	1	3	104	1	—	102	2	3	104	1	—
—	—	—	—	—	—	104	1	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
1	1	—	1	1	—	2	3	—	1	1	—

Z.)—*Voting Papers on the application of the Method to equal Majorities in all Counties, Cities, and Boroughs.*

Name\_\_\_\_\_

Address\_\_\_\_\_

Vote No.\_\_\_\_\_ Parish of\_\_\_\_\_ Borough of\_\_\_\_\_

The above-named elector hereby records his vote for the Candidate named first in the subjoined list, or, in the events provided for by Statute, for the other Candidates successively in their numerical order, viz. :—

1	
2	
3	
4	
5	
6	
7	
8	et seq.

OPENING ADDRESS of NASSAU W. SENIOR, ESQ., as PRESIDENT  
of SECTION F (*Economic Science and Statistics*), at the MEETING  
of the BRITISH ASSOCIATION, at Oxford, 28th June, 1860.

IN 1856 the General Committee of the British Association decided that the Section over which I have the honour to preside, should be entitled "The Section of Economic Science and Statistics."

I have looked through the papers which since that time have been communicated to us, and I have been struck by the unscientific character of many of them.

I use that word not dyslogistically, but merely distinctively, merely as expressing that the writers have wandered from the domain of science into that of art.

I need scarcely remind you that a Science is a statement of existing facts, an Art a statement of the means by which future facts may be brought about or influenced. A science deals in premises, an art in conclusions. A science aims only at supplying materials for the memory and the judgment. It does not presuppose any purpose beyond the acquisition of knowledge. An art is intended to influence the will: it presupposes some object to be attained, and it points out the easiest, the safest, or the most effectual conduct for that purpose.

The subjects to which the British Association has directed our attention are Economic Science and Statistics.

Economic Science, or, to use a more familiar name, "The Science of Political Economy," may be defined as "The science which states the laws regulating the production and distribution of Wealth, so far as they depend on the action of the human mind."

I say, "so far as they depend on the action of the human mind," in order to mark to which of the two great genera of sciences, the *material*, or, as they are usually called, the Physical; and the *mental*, or as they are frequently called, the Moral, sciences, Political Economy belongs.

Unquestionably the political economist has much to do with matter. The phenomena attending the production of material wealth occupy a great part of his attention; and these depend mainly on the laws of matter. The efficacy of machinery; the diminishing productiveness, under certain circumstances, of successive applications of capital to land; and the fecundity and longevity of the human species, are all important premises in political economy, and all are laws of matter. But the political economist dwells on them only with reference to the mental phenomena which they serve to



explain; he considers them as among the motives to the accumulation of capital, as among the sources of rent, as among the regulators of profit, and as among the causes which promote or retard the pressure of population on subsistence.

If the main subject of his studies were the physical phenomena attending the production of wealth, a system of political economy must contain a treatise on mechanics, on navigation, on agriculture, on chemistry—in fact, on the subjects of almost all the physical sciences and arts, for there are few of those arts or sciences which are not subservient to wealth. All these details, however, the political economist avoids, or uses a few of them sparingly for the purpose of illustration. He does not attempt to state the mechanical and chemical laws which enable the steam-engine to perform its miracles—he passes them by as laws of matter; but he explains, as fully as his knowledge will allow, the *motives* which induce the mechanist to erect the steam-engine, and the labourer to work it. And these are laws of mind. He leaves to the geologist to explain the laws of matter which occasion the formation of coal, to the chemist to distinguish its component elements, to the engineer to state the means by which it is extracted, and to the teachers of many hundred different arts to point out the uses to which it may be applied. What he reserves to himself is, to explain the laws of mind under which the owner of the soil allows his pastures to be laid waste, and the minerals which they cover to be abstracted; under which the capitalist employs, in sinking shafts and piercing galleries, funds which might be devoted to his own immediate enjoyment; under which the miner encounters the toils and the dangers of his hazardous and laborious occupation; and the laws, also laws of mind, which decide in what proportions the produce, or the value of the produce, is divided between the three classes by whose concurrence it has been obtained.

When he uses as his premises, as he often must do, facts supplied by physical science, he does not attempt to account for them; he is satisfied with stating their existence. If he has to prove it, he looks for his proofs, so far as he can, in the human mind. Thus the economist need not explain why it is that labour cannot be applied to a given extent of land to an indefinite amount with a proportionate return. He has done enough when he has proved that such is the fact; and he proves this by showing, on the principles of human nature, that, if it were otherwise, no land except that which is most fertile and best situated, would be cultivated. All the technical terms, therefore, of political economy, represent either purely Mental ideas, such as *demand*, *utility*, *value*, and *abstinence*; or objects which, though some of them may be material, are considered by the political economist so far only as they are the results or the

causes of certain affections of the human mind, such as *wealth, capital, rent, wages, and profits.*

The subject matter of Political Economy is, I repeat, *wealth.* The political economist, as such, has nothing to do with any of the other physical or moral sciences, or with any of the physical or moral arts, excepting so far as they affect the production or distribution of wealth. Whether wealth be a good or an evil; whether it be conducive to human morality or to human happiness, that it be hoarded or that it be consumed, that it be accumulated in masses or that it be generally diffused; are questions beyond his science. His business is to state what are the effects on the production and distribution of wealth, or, to use a shorter expression, the economic effects of accumulation and of expenditure, of the different kinds of consumption, and of the aggregation in few hands, or the division among many, of the things of which wealth consists. Whenever he gives a *precept*, whenever he advises his reader to do anything, or to abstain from doing anything, he wanders from science into Art, generally into the art of morality, or the art of government.

The science of Statistics is far wider as to its subject matter. It applies to all phenomena which can be counted and recorded. It deals equally with matter and with mind. Perhaps the most remarkable results of the statistician's labours are those which show that the human will obeys laws nearly as certain as those which regulate matter.

There are countries in which we find year after year the same number of marriages at the same ages, and in the same proportion to the population, the same number of children to a marriage, the same number of bankruptcies, and the same number of crimes and suicides, committed at the same ages, and by each sex in permanent proportions. In which the average height, the average weight, the average consumption and production of commodities, and the average longevity, of men and of women, continue for long periods unaltered.

There are others in which the number or the proportion of these events varies. In which marriages, births, deaths, crimes, consumption and production, and even the average stature are different at different periods. This uniformity, or these differences, are detected by the statistician. His task is over when he has stated and recorded them. It is the business of the legislator to draw from the figures of the statistician, practical inferences. To ascertain the circumstances, moral, commercial, or political, under which the tribute paid by his countrymen to insolvency, crime, sickness, and death, has been diminished, or has remained stationary. These circumstances will often appear to be under control, and by watching the statistical



results of every attempt to control them, he will ascertain whether they *are* under control or not.

We have been told that a statesman "reads his history in a nation's eyes." I should rather say that he reads it in a nation's figures.

But it is not only to the statesman that Statistics are useful. Many of the most important and most useful employments of capital depend on them. Vital Statistics are the base of life insurance. They decide the value of annuities, of life estates, and of reversions. Every man in the management of his property has to consult them. The statistics of fires regulate fire insurance, those of wrecks regulate marine insurance. Wherever the success or failure of an undertaking depends on the calculation of chances, and wherever the events subject to those chances have been observed and recorded in numbers sufficient to afford an average, the prudence or imprudence of the undertaking depends on that average. To *give* that average is the business of the statistician. To *act* on it is the business of the speculator. If in London one house in two thousand were burnt down every year, nothing would be gained or lost by insuring houses in London at a shilling per cent. per annum. If one in a thousand were burnt down, such an insurance would be ruinous. If only one in three thousand, it would be very profitable. But, I repeat that the observation, the recording and the arranging facts, which is the science of Statistics, and the ascertaining, from observation and from consciousness, the general laws which regulate men's actions with respect to production and exchange, which is the science of Political Economy, are distinct from the arts to which those sciences are subservient. We cease to be scientific as soon as we advise or dissuade, or even approve or censure.

I said that I had been led into this train of thought by looking through the papers which have been communicated to this Section since 1856. I find that we received during that year "Suggestions on the Education of the People."

We had a paper on the general principles by which Reformatory schools ought to be regulated. We had another on the importance of open and public Competitive examinations.

In 1857 we had one on the prevention of crime; one on the reasons for extending limited liability to joint stock banks; and one on the apprenticeship system in respect to freedom of Labour.

In 1858 we had one on the principle of open competition; one on public service, academic, and teacher's examinations; one on the importance of a colonial penny postage to the advancement of science and civilization; and one on the race and language of the Gypsies.

If it be said that in all these papers, except indeed the very last,



there was a reference to statistical facts, or to economic principles, and that therefore they were properly communicated to this Section, the answer is, that there is no province of the great arts of legislation, of administration, of commerce, of war, indeed, of any of the arts which deal with human feelings, in which frequent reference must not be made to political economy, and occasional reference to statistics. There is scarcely a moral art therefore of which we should not be able to take cognizance.

But I do not think that such an extension of our jurisdiction would be advisable. I believe that in mental, as in manual arts, the division of labour is useful. Within the strict limits of Economic Science and Statistics, a large field is open to us. It appears to me that we shall do well, if, as far as may be practicable, without much inconvenience, we confine ourselves within it, and deviate as little as we can into the numerous arts to which those sciences afford principles.

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*Some OBSERVATIONS on the present Position of STATISTICAL INQUIRY, with SUGGESTIONS for IMPROVING the ORGANIZATION and EFFICIENCY of the INTERNATIONAL STATISTICAL CONGRESS.*

THE two following papers appeared in the "Economist" newspaper of the 4th and 11th August, 1860.

I.

"The meeting in London, under the Presidency of the Prince Consort, of the Fourth Session of the International Statistical Congress, has naturally directed a large amount of attention to a branch of enquiry not overlooked or undervalued by ourselves. The Congress itself is a fact and symptom of the present time in many ways remarkable. The basis of the Association is, that in every second year the several civilised States of the world should be officially invited by the Government of some one of them to send to its capital persons duly accredited and instructed, and supposed to be competent, to enter into discussions and conferences relating to the best methods of promoting Statistical investigations throughout the whole range of subjects which fall within the province of legislation. Already on three former occasions, viz.,—at Brussels in 1853, at Paris in 1855, and at Vienna in 1857—meetings on this basis have been held,—have been attended by official delegates from a considerable number of countries, European and Transatlantic,—and have issued reports and documents which have commanded, by their scientific and practical character, a large amount of attention. The meeting which commenced in London on the 16th July, and continued on the five following days, was the fourth repetition of the experiment of a Congress, and we hear on all hands that at no former meeting has the attendance been larger, the proceedings more earnest, or the results more encouraging.

"The organization of these meetings is a task imposing great labour, no small expenditure of time, the co-operation of hundreds of intelligent men of all countries, and the outlay of no trifling sum of money. But this labour and cost has now been repeated for the fourth time, and will be repeated for the fifth in 1862 at Berlin. The Congress itself, therefore, is a hard fact, testifying by its vitality and success to the existence of some want so generally felt that even the official classes throughout Europe and America are willing to depart from their usual routine, in order to promote the search for some means of meeting that want.

"In a few words, this want may be said to be the indication of nothing less than the necessity under which all Governments are

rapidly finding themselves placed, of understanding as clearly and fully as possible the composition of the social forces which, so far, Governments have been assumed to control, but which now, most men agree, really control Governments. The world has got rid of a good many intermediate agencies, all of them supposed originally to be masters, where, in truth, they were even less than servants. The rain and the sun have long passed from under the administration of magicians and fortune-tellers; religion has mostly reduced its pontiffs and priests into simple ministers with very circumscribed functions; commerce has cast aside legislative protection as a reed of the rottenest fibre; and now, men are gradually finding out that all attempts at making or administering laws which do not rest upon an accurate view of the social circumstances of the case, are neither more nor less than imposture in one of its most gigantic and perilous forms.

“ Men are also finding out, as did the natural philosophers three hundred years ago, that, speaking in a large sense, our social and legislative philosophy is scarcely more than a bundle of general notions and propositions, unfortified by any adequate series of observations made by competent persons, recorded in a satisfactory manner, and analysed and digested by a rigid logic into scientific expressions fairly representing common results. The sense of this great void has during the last ten years become increasingly acute in this and in most other countries. The armoury of the ancient statecraft has been found to be almost as supremely effete as the cross-bows of the Crusaders. Crime is no longer to be repressed by mere severity,—Education is no longer within the control of the maxims which preceded printing,—Law is found to be a science perhaps the most difficult of any,—Justice means more than tricks and plausibilities of procedure;—Taxation, Commerce, Trade, Wages, Prices, Police, Competition, Possession of Land,—every topic from the greatest to the least which the old legislators dealt with according to a caprice as absolute as is exercised by the potter over his vessel,—have all been found to have laws of their own, complete and irrefragable. There is already abroad an idea, more or less distinct, of what has been called,—provisionally perhaps,—Social Science; and so popular is that idea, that in this country we have an Association, progressive and successful, which, by annual meetings in our large towns, seeks by a week of debates and conferences expressly to promote Social Science,—implying in this phrase whatever affects the material moral, or mental condition of man in civilized society.

“ But the more intelligent cultivators of this new study are painfully sensible that, so far, they are mere dwellers upon the threshold of the temple they seek to enter and understand in all its parts. They are oppressed on all sides with suggestions and theories, and



they find themselves assailed, even upon the most fundamental points, with hypotheses clearly unsound, but as clearly unrefutable by means of any positive doctrine resting upon ample scientific data.

“The International Statistical Congress has set itself the task of procuring this scientific data; and in the present state of the world, no higher or more useful service could be undertaken for the furtherance of the best interests of the species.

“Statistics in social philosophy hold the same place as Experiments in natural philosophy. Observations of natural phenomena are among the earliest and most inevitable applications of the faculties of the human mind. But so long as these observations were capricious, irregular, imperfect, and obscure, they were of no more value in the construction of science than the loose traditions of a Tartar tribe. Men debated on the nature of motion and the composition of matter in the same abstract and general terms in which we at present discuss the effects to be produced by particular schemes of law, and the operation in actual practice of particular schemes of interference with the economical condition of a people. In the case of the ancient physical philosophy, the *a priori* view, abstract and general as it was, did undoubtedly contain some portion of the real truth. But, as a whole, that philosophy was no more than an ingenious mental diversion. For all practical purposes, it was worthless and deceptive. The outside analogies served very badly as guides to the modifications and cross influences by means of which nature adapts all general laws to her complex machinery. So it is at present with social problems. Intelligent men see the phenomena from the outside,—they speculate upon the nature of the subtle forces which are at work beneath,—and, led forward by that passion for symmetrical system which has played so great and also so mischievous a part in the history of the human mind, they expand their notions into creeds and bodies of doctrine to be defended with all the fierceness of first discoveries.

“It is certain, however, that if experiment in its highest scientific forms was needful to the building up of a Natural philosophy as solid as it is comprehensive, still more needful is experiment, assisted and guided by the best and latest lights, to the building up of a Social philosophy which, in its turn, shall rear its pinnacles to an elevation as high and from a platform as immoveable.

“We will not say that hitherto statistics have been, as were the earliest physical observations, capricious, irregular, imperfect and obscure. The exact contrary of such a statement would be no more than the bare truth in a large number of instances—as, for example, in the important field of vital statistics. But, regarded comprehensively, it is strictly true that we are only just beginning to comprehend

the real nature, the proper limits, and the specific force of the labours of the philosophical statist.

“ In a sense very large and absolute, he is merely the intelligent ally of the cultivators of branches of knowledge in themselves complete. He can inform the student of Jurisprudence how many suitors have resorted to a particular court, or availed themselves of a particular statute; but it is beyond his province to discuss the origin or authority of the tribunal, or the policy or provisions of the enactment. Statistics in like manner are the allies of medicine, of police administrators, of sanitary authorities, and of a large class of kindred branches of inquiry. In these cases the office of the statistician is subordinate to the office of him who cultivates the larger science from which is derived the principles and scope of the enquiry. The jurist must classify his crimes and civil causes in accordance with enlightened rules of logic and equity, and the statist can do no more than fill up the schedules prescribed by this higher and special knowledge. But even here there is a limitation not to be overlooked. A cultivator of merely abstract studies is generally the worst and most incompetent observer of the practical operation even of those principles of which he understands the most; and it is here that the statist steps forward and tells him that unless his methods of observation be adjusted with a nice regard to the actual exigencies of the case—unless they avoid the trivial and set forth the vital bearings of the question—he must still submit to be deprived of all real aid from positive observations.

“ There, is, therefore, within all the larger social sciences an inner and smaller science which takes charge of the duty of verifying or confuting by facts, collected, classified, and reduced into simple general results, the larger doctrines which arise from the *a priori* discussion of principles.

“ But beyond this auxiliary position, the statist has a department entirely his own. Throughout all civilized societies, as throughout all physical nature, there is a series of positive *Units* which represent the numerical force or expression of every class of the phenomena to be dealt with. The mean temperature, for example, of this island is expressed by a given figure,—and so is the mean duration of human life. In like manner we may arrive at units more or less trustworthy as regards the mean annual number of crimes in this island of a given class,—of accidents of a given kind,—of the average amount of wages in a given trade,—of the average annual amount of exports per head of population,—and so on through a long catalogue. If a series of units of this character could be determined rigidly for each civilized State, we should have before us a chart of the social economy of the world almost as complete as the charts we already possess of its physical geography.



“But between our present imperfect knowledge and the attainment of such an end, there stretches, now, a wide and untamed wilderness. But that wilderness will be traversed, and it will be traversed by a steady perseverance in the path of vigorous statistical inquiry which has marked the last ten years. Students in all countries are now agreed that the first step must be some method of uniform observation, and they are partly agreed as regards the principles of that uniformity. By-and-by will arise clearer notions of method, exacter views of the scope and aim of the objects to be pursued, and precise canons as regards the composition and force of averages, and numerical modes of statement. We shall advance from the less to the greater,—from the circumference towards the centre; and the generation which witnesses the termination of the task, will not be backward to reckon the completed labour among the noblest inheritances won by the patient sagacity of the human mind.”

## II.

“Last week we considered the general questions arising out of the design and labours of the recent meeting here of the International Statistical Congress. We have now to offer some suggestions for increasing the efficiency of the procedure adopted by the Congress.

“The plan of seeking to promote the cultivation of departments of knowledge by periodical gatherings—(not in the same place, but in different places)—more or less miscellaneous of persons who take an interest in the particular pursuit, is one of the useful and successful innovations of recent years. The first leading example was furnished by the British Association for the Advancement of Science,—meaning by science, so far as the Association was concerned, physical science almost exclusively. The thirty years’ career of that distinguished body has practically solved the somewhat difficult problem of obtaining continuous work and valuable results from the meeting once a year of a large number of persons, most of them personally strangers to each other, and drawn together so little by means of any rigid qualification, that full admission to all discussions and meetings has from the first depended merely upon the payment of a small fee. It fortunately happened, however, that at the outset of the enterprise the happy expedient was hit upon of dividing the general mass into five or six specific parts or Sections, each charged with a special group of topics, and of placing at the head of each section a few men, markedly eminent in connection with those topics. By this device, discussions which would have been impossible in the midst of the whole body became possible, practicable, and interesting. The strength, therefore, of the British Association lays in the vigour of its Sections, and in the skill and energy with which these sections



are conducted,—and it is precisely in proportion to the degree in which all subsequent and similar bodies have perceived and adopted this *sectional principle*\* that the element of real work has been developed.

“ Great, however, as has proved to be the capacity and usefulness of the Sections of the British Association, there will be few of its regular members who will hesitate to acknowledge that this capacity and this usefulness would be very largely increased if to each section could not only be allotted a particular subject—Geology for example—but if further, there could be assigned by prior arrangement to *each annual meeting of each Section* some specified class of questions relating to its own allotted science. At present, no one can tell beforehand in what direction the inquiries or discussions of a section will run, and hence an absence of precision and preparation very often to be regretted.

“ Now the International Statistical Congress has to a large extent avoided this defect from the outset—for the founders of the Congress adopted as a fundamental rule, that while the principle of a *sectional* division of topics should be followed, there should also be for each section a Programme prepared, printed, and distributed beforehand, not merely setting forth the mere heads of the business to be brought forward, but presenting to the section a preliminary survey and discussion of the scope and design of the questions to be considered. These programmes have generally been prepared by persons reasonably competent to take a leading part in the discussion of the subjects referred to them. There have, of course, been great inequalities in the execution of a series of papers so extensive, but as the general result it may be affirmed with much truth, that it is to the efficiency of the programmes that a large part of the real usefulness of the several meetings of the Congress may be attributed. In those cases where the programmes have been carefully prepared with a view to placing the questions desired to be raised, in a specific and comprehensive form before the section concerned, the debates have been, as a rule, systematic and useful, and the results positive and clear.

“ It seems to us, therefore, that as regards the Statistical Congress, the object to be kept most constantly in view is the improvement

\* There are six sections at the meetings of the British Association, viz.:—Mathematics and Physics—Chemistry and Mineralogy—Geology, Zoology, Botany, and Physiology—Geography and Ethnology—Economic Science and Statistics—and Mechanical Science. There are also six sections at the meetings of the National Association for Promoting Social Science, viz.: Amendment of the Law—Education—Prevention and Repression of Crime—Reformation of Criminals—Sanitary Science—and Social Economy. At the recent meeting in London of the International Statistical Congress there were also six sections, viz.: Judicial Statistics—Sanitary Statistics—Industrial, Agricultural, and Mining Statistics—Commercial Statistics—Census Statistics—and Statistical Methods.

still more of the present excellent plan of sectional programmes prepared and distributed in ample time before each meeting. We are quite sure also, that if the same practice could be introduced in some form or other into the British Association, and the Association for Promoting Social Science, the favourable results would be speedy and decisive.

"It happens, however, with the Statistical Congress, that while its arrangements of sections and programmes present plans for imitation, its method of working out these plans is seriously defective. In the British Association the whole working hours of each day are assigned to the Sections, and the proceedings of each section as regards its own labours and discussions are final. There is no appeal from the section to the general miscellaneous body of members. But with the Statistical Congress the practice is to abridge the work of the Sections to half the working hours, and to consume the other half in desultory discussions in the midst of the entire body of persons assembled. In other words, decisions are reported from select numbers of persons who have patiently considered all the bearings of the case, to a loose fluctuating meeting who have not heard the arguments, and have not time to consider the particular point brought forward. The chief evil entailed by this unfortunate plan is great waste of time, but sometimes it leads to ultimate decisions more hasty than defensible.

"Another defect also is the reception from each of the Foreign Delegates of what is called a report of the progress of Statistical inquiry since the preceding Congress in the country he represents. For practical or scientific purposes these reports are generally of small value. The better plan of dealing with them would be to establish a distinct section for the reception and discussion of International Progress Reports, and to seek, by means of a careful preliminary programme, to impart some degree of scientific uniformity and precision to the documents to be sent in. At all events, the present unprofitable expenditure of the latter half of the working day should be at once corrected. Following the example of the British Association, it is probable that one or two general meetings might be held for the delivery of discourses on some assigned topic of interest. But the purposeless speeches and the offensive frequency of mutual compliments which disfigure the general miscellaneous meetings should be abated with a vigorous hand, as blemishes discreditable in themselves and full of danger.

"But supposing all these reforms to be adopted, the Statistical Congress would have still to contend with a difficulty of the gravest kind. The meetings take place in alternate years. But during the intervening two years the organization is practically dissolved. There remains in force no competent central power qualified and



bound to watch over the progress of inquiry during the interval, and vigilant to promote the fulfilment of the recommendations adopted at the former meetings. But if the meetings are to be really efficient, there must be systematic preparation during the period of time which separates them. We may seem to treat the matter in over-serious a spirit, and to convert into business something which is taken up for pleasure. Our reply is, that if the pretensions put forward are intended to bear a serious meaning, the enterprise must be dealt with as a reality and not as a toy. The intention is to advance our knowledge of a most important and difficult class of questions relating to human societies—and unless the whole proceeding is to provoke ridicule, the means adopted must be such as will produce solid and valuable results—and solid and valuable results can only be the results of labour and contrivance. Those who will not comply with the conditions should not intrude themselves into the enterprise.

“Probably the best place for the establishment of a Central Committee would be Brussels. Hamburg would in some respects be preferable, but on the whole would not be so eligible as the Belgian capital. Two or three leading men could be found in Brussels to form the committee, and there could also be found there a man with the needful accomplishments as a linguist and statist, who, in return for no very extravagant *honorarium*, would act as central secretary of the Congress between its meetings. The needful funds would be provided, as in other similar cases, by a small membership fee, and by the sale of reports and programmes. In other respects, the present plan of bearing the expenses of the meetings may for a time at least be continued.

“We have gone somewhat out of our usual path for the purpose of considering the questions herein adverted to. But we have had the less hesitation in doing so, because we recognise in the British Association, the Statistical Congress, and the Social Science Association, at least the rudiments of one of the most powerful methods hitherto suggested for the vigorous prosecution of branches of inquiry most vital to human welfare. It is too much the custom in such societies to contract a habit of obstructive complacency. The casual visitors see too little to understand the whole. The regular attendants become intensely conservative of everything which familiarity has made easy to them. The meetings occur but once a year, and last only a week; imperfections, therefore, however apparent, are felt but for a short time, and hence it is that suggestions such as we now offer, not in any hostile, but in an eminently friendly spirit, may perhaps be of service.”



*On the SYSTEM of TAXATION prevailing in the UNITED STATES, and especially in MASSACHUSETTS. By EDWARD JARVIS, M.D., (Boston, U.S.), President of the American Statistical Association.*

[Read before Section (F), of the British Association for the Advancement of Science, at Oxford, 3rd July, 1860].

THE constitution of the United States provides for the taxation of the people whenever Congress may think the public necessity requires it, yet there are no taxes laid and raised by the general government, nor have there been any for more than forty years. The last direct tax raised for national purposes, was assessed for the payment of the expenses of the War of 1812 to 1815. All the current expenses of the Union and government, and all the debts for the Mexican Wars, the purchase of territory, &c., and all the interest on the public debt, indeed all the national expenses and obligations are met, and are to be met, by the receipts from Customs, from duties on goods imported from abroad, and by the sales of public land. These are sufficient for all the purposes of the nation. Such a thing as a national tax-gatherer is not known, and has not been known within the last generation, in the United States.

*State Taxes.*

All the other public interests are maintained, and public expenses paid, by the several State governments, or, under the State laws, by some of their divisions, as counties, towns, &c. Each of the thirty-three States is independent, in this respect, of the others, and of the general government. Each has sovereign power to regulate its own internal affairs, it raises and expends its own money, or directs it to be raised and expended, in its own way.

In each State the taxes are assessed and the money paid for general and local purposes. And although all are raised and appropriated under the State laws, yet in most, if not in all the States, the former only—the general expenditures—are provided for and managed by the legislatures, while the latter—the local expenses—are left to

*Note.*—Dr. Jarvis, the writer of this Paper, was one of the American Delegates to the recent International Statistical Congress. I have to express to him the best thanks of the Society for the readiness with which he complied with a request addressed to him to prepare for the Oxford Meeting of the British Association the present Paper on the system of Taxation prevailing in New England. The Paper will, I think, be admitted on all hands, to present in a small compass a comprehensive and most intelligent outline of the large field to which it refers. Dr. Jarvis carries forth with him to his own country the regard and esteem of a numerous circle in this old country of his ancestors.—ED. S. J.

the control and management of the local authorities, the counties, towns, &c.

In Massachusetts, the State expenditures are principally for the payment of the legislative, judiciary, and other public officers, for military bounties, agricultural societies, support of foreign paupers—the last one the greatest item—charities, lunatic hospitals, idiot schools, blind institutions, deaf and dumb, grants to colleges, scientific surveys, &c.

All these State expenses, which a few years ago amounted to only about five or six hundred thousand dollars (100,000*l.* or 120,000*l.*) a year, were met by the bank tax, or an annual assessment of *one per cent.* of the *capital* of every Bank, and the tax upon sales at auctions. But within six or eight years the State expenses have been greatly increased by the enlarged grants to agricultural societies, the building of lunatic hospitals, and the very great addition of State paupers, and the necessity of building three great alms-houses, and of supporting, in them, about 2,000 or 2,500 foreign paupers, mostly Irish and their children. Beside these there were, at the last enumeration, 581 foreign lunatics, of whom 487 were born in Ireland, 16 in Great Britain, and 46 in the British provinces, all supported by the State treasury, and mostly in the State hospitals. In consequence of the great increase of the public burden, a State tax has become necessary in several of the years since 1850.

Nevertheless, this tax when assessed upon the estates of all the people falls very lightly upon each individual, and is a very small ratio of each one's income or property.

The Legislature, at its annual session, determines how much money shall be expended for each purpose, and if, on comparing the sum of all the appropriations, with the known income from banks and the probable income from other sources, it is found that there will be a deficiency, the sum wanted is assessed upon the several cities and towns in proportion to their means of payment. Notice is then given to each local municipality of the amount required of it, and the local authorities raise this State tax in connection with the taxes raised for domestic purposes, and deliver the money thus required and raised, to the State treasurer.

#### *County, Town, and City Taxes.*

The *Counties* of Massachusetts have the care of the prisons, and pay for their support, as well as for the administration of justice, the cost of trials, juries, witnesses, sheriffs, &c. They also have jurisdiction of roads, and pay the cost, in part or the whole, of making new, and widening or altering the old, highways, but not of keeping them in repair. The county affairs to this extent are managed by the County Commissioners, chosen every three years by the people.



They direct the expenditure of money for county purposes, and determine how much is needed in each year by leave of the legislature. They assess this upon the several towns and cities in ratio of their valuation or the sum of the estates in each.

The law specifies the purposes for which the cities and towns may raise money, but within the limits of the law they may raise and expend it in their own way.

All the territory of Massachusetts and of the other northern States, is divided into *Towns*, each is endowed with power to manage its own domestic affairs under the regulations of the law. These towns vary in size, from 10 to 60 square miles, but the average size in Massachusetts is about 25 *square miles*. The towns are all country or rural districts, with a scattered and mostly agricultural population, varying from about 300 in the smallest, and in the mountain districts to 12,000 in the largest, which have one or more villages.

The constitution of Massachusetts permits the legislature to convert any town into a *City*, whenever its population shall amount to 12,000, and to grant to it a charter, authorizing the people to elect annually a city government, consisting of a Mayor, a Board of Aldermen, and a Common Council. This city government has power to manage the public municipal affairs, assess and raise taxes, appropriate money, &c., instead of the people at large. But so great is the jealousy in that country of delegated authority and the unwillingness to permit the power to assess taxes and expend public money, to pass out of their own hands, that the people are unwilling to accept any city charter, and give up the power to manage their own affairs, provincial and others, in their public assemblages, until their numbers of voters become so large as to render it impossible for all to meet in the town hall, and to transact the town business and manage the public affairs in their town meetings\*.

But the Towns elect superintending officers, called "*select men*," who under the votes and direction of the people in town meeting assembled manage all the details of municipal affairs.

#### *Town Meetings and Appropriation of Taxes.*

By requisitions of the law, town meetings, or assemblages of all the voters of the town, are called once or more in each year, by public notice from the select men. Several copies of this notice are posted up in various public places of the town, or printed copies are sent to every voter; always the first and frequently both means are used to notify the people of the time, place, and purposes of the meeting. The law requires that these notices be issued ten or fourteen days before the meeting, and that they specify every item of business that is to be brought before the Town for its consideration and action. Every voter therefore, has, or may have, legal information of



every matter that is to be or can be done by the people in this public meeting, and no business can be legally transacted, and no votes are legally effective or binding, except on such subjects as are thus presented to the town and the voters in the address.

At the town meetings, usually in March or April, the Select Men who have had the oversight and direction of the town affairs in the previous year, make a report of the financial history of the municipality during their last period of administration, stating how the public money was expended, and what is then needed for each purpose in the coming year. The School Committee made a similar report of their recent administration, showing the manner and results of the expenditure in the past year, and the wants of the next. In most towns these reports are printed in advance, and a copy sent to the house, lodgings, or place of business of each voter in the town. The Town is then prepared to vote on every item of expenditure which can be proposed, and when assembled they take up each subject and proposed amount of appropriation, and deliberate upon it as any legislative body. Every voter in the town, however poor, may give his views upon the matter in question. He may propose for any sum,<sup>a</sup> however large, for any legal purposes; and any other voter, however rich, may oppose and vote against any sum however small. They all, rich and poor, stand alike in this respect, each can give *one vote* and no more. The poor can do as much as any other by his vote, to increase the public tax, which hardly reaches him, and the richest can do no more, however great may be the part he is called upon to pay. With this freedom of discussion, the Town votes to raise such sums of money for each separate purpose, for schools, roads, fire department, paupers, miscellaneous expenses, &c. The sum of all these monies thus appropriated by the rate of the town, is the *Town Tax*.

In the Cities the same is done by the *city councils*, they vote the amount of money to be raised and expended for each purpose, in the same manner as the people at large in the town or county districts.

#### *Assessors of Taxes.*

There is another set of officers elected by both towns and cities, called the Assessors. These are chosen annually. The sum of all the appropriations by the people of the towns and the councils of the cities, and also the amounts required by the State and County, are all added together in one gross sum, and this is given to the Board of Assessors to be apportioned among the people, according to their means of payment.

The first business of the assessors is to ascertain the amount which each person in the city or town may possess, and the sum of all the estates in the municipality. For this purpose every one is

required by the law to make a report to the assessors of the kind and value of all his property, houses, lands, ships, merchandize, money on hand, or at interest, stocks in railways, bonds, insurance companies, manufacturing companies, public funds, &c.

In some cases the assessors or an authorized agent call upon each tax payer for this information. In others, printed notices containing the requisition of the law and stating the facts desired to be known, are sent to each one's house, and again, public notices for the same purpose are posted in public places.

The *State tax*, ordered by the legislature to be paid by each town; the *county tax*, assessed on the town by the county commissioners; and the *town tax*, voted to be raised by the town for domestic expenses, all together constitute the total Town Tax. These are put into the hands of the assessors, and are to be paid by the people. A small portion of this money is assessed as Poll Tax equally upon all male adults. This varies in different cities and towns from a dollar to a dollar and a-half, or from four to six English shillings for each person. In a few towns it is less, and in some towns more. This is the lowest tax, and is paid by every one, whether he has any estate or not, provided he can pay anything.

The rest of the tax is to be assessed upon estates in exact proportion to their valuation, and each property-holder pays in ratio of the amount he may possess.

In order to ascertain the amount of each person's estate, he or she is required by the law to make a statement thereof to the assessors. This includes property of *every kind*,—lands, houses, stores, warehouses, shops, barns, stables, and other buildings of every sort, goods, merchandize, stock-in-trade, raw materials, manufactured articles, machinery, agricultural produce, cattle, horses, carriages, money at interest more than money hired, stock in banks, railroads, insurance and other joint stock companies or corporations, ships, household furniture of over a thousand dollars value, all the property real and personal, visible and invisible, is required by the law to be made known to the assessors by the proprietors.

All the real estate, lands, buildings, &c., are matters of public record, and the ownership known to the public officer. And if the owners of these do not affix a proper valuation, the assessors re-value it, and more commonly the owners only return a description of this class of property, and leave to the assessors the work of valuation, which they do according to their best judgment, subject to correction, as will be hereinafter stated, if this valuation be too high.

The farmer makes a statement of the number of acres or quantity, and the kinds of his lands, of his houses, barns, or stables, cattle, horses, sheep, swine, utensils, grain, hay, &c., and the value of each.



A trader or merchant gives an account of his house, store, or warehouse, if he is the owner of either of these, his stock of merchandise on hand, and money at interest, &c.

A blacksmith reports his house, shop, or smithy, and stock of iron, manufactured or unmanufactured, on hand, &c.

The same is done by men in all other occupations, and of course each ought to add to these items of property all others that he may possess. Usually, however, the tools of the mechanic and the small stock of materials he may have in his shop, are not expected to be reported or taxed.

The tax on real estate, lands, or buildings, is assessed upon the *proprietor*, and not upon the occupant,\* unless by contract between these, the tenant agrees to pay it, and notice thereof is given to the assessors. In this case the tax is assessed upon him; but this does not release the proprietor from the responsibility of payment if the tenant should fail to do so.

All real estate, and all substantial personal estate, as goods, wares, merchandize, are taxable, wherever they may be; but money at interest, stocks in banks, railroads, &c., are taxable, wherever the *owner* has his domicile or home. Thus, a merchant doing business in Boston but living in Dorchester pays taxes on his warehouse, his stock-in-trade, &c., in Boston, and the taxes on his dwelling, garden, &c., his bank-stock, his money at interest, his ships at sea, are paid in Dorchester.

Notwithstanding that the law requires every owner of property to make a full report thereof to the assessors, yet very many omit to do this. In this case, the assessors are required to make their own estimate or valuation of the estate, and to assess the tax accordingly. This is called "*dooming*." This official valuation is made from all the means of information the assessors can obtain; and often where the estate is invisible, from conjecture. Of course there is danger of over-valuation and excessive assessment of tax. Yet the tax-payer has his ready remedy if he thinks he is charged too much. He has the privilege, within a certain period, of presenting, under oath, an exact inventory of all his estate, and the board of assessors, unless they have reason to suspect fraud, are obliged to correct their assessment accordingly.

Nevertheless a *large proportion* of the people submit to be "*doomed*," and are content with leaving the valuation of their estates

\* It may be proper here to say, that in the United States almost all the cultivated lands or farms are occupied and cultivated by the *proprietor*. Very few are let or leased to tenants, and generally if a person or family own a farm which they do not wish to cultivate, they sell it at their earliest opportunity, and usually to some one who desires to occupy it. In the villages and cities there are many dwellings, stores, warehouses, shops, &c., which are occupied by tenants, yet these by *no means constitute the majority* of such species of property.



to these public officers. And on the contrary, there are, in every year, in some towns certainly and in most towns probably, a few who feel themselves aggrieved, and complain of excessive valuation and undue taxation, and claim a redress by abatement, which they can obtain if they have just cause for such reduction of public demand.

Thus the loss, which the public treasury might suffer from the neglect of the property-holders to make a statement of their estates, is nearly prevented by the power which the assessors have to make a valuation and assessment according to their own judgment, and even so high as to induce the tax-payer to make the exact and full report of his affairs. And on the other hand, the people can always protect themselves from excessive taxation, by making this exhibition of their financial condition even after the tax is imposed.

Yet there is a *very prevalent opinion* that some of the more wealthy citizens, much of whose property is invisible,—in money at interest, &c.,—do not bear their due proportion of the public burdens. But real estate,—lands, buildings, &c.,—cannot escape the observation of public officers, and these are fully taxed.

Moreover, in Massachusetts, the clerks, or secretaries, or cashiers, of all banks, railroad, manufacturing, insurance, and all other joint stock companies and corporations, which are established or authorized by the State, are required by the law to make record of the name and residence of each stock or shareholder; and the recording officers of these companies and corporations are also required by the law to send to the authorities of every city and town of the State the name of every stock or shareholder who may belong to that city or town, and the amount held by each. By this means all the property in corporations held by citizens of the State is made known to the assessors, and none of it escapes taxation.

From these sources, the reports of such as make due returns, the reports of the clerks of works and other corporations, the public record, and the visible nature of all real estate, and finally the power of the assessors to “doom” the silent property-holders, an approximation is made to the true value of the estates of all the people, and the sum of these is the total valuation of the city or town.

Taking, then, the whole sum of money required to be raised for State, County, and Town purposes, and deducting from this the amount to be assessed on the Polls or persons, the remainder is to be assessed upon the estates. The proportion which this shall bear to the whole, on the rate of taxation, is a simple matter of arithmetic, and is very easily determined. Having arrived at this rate, it is an equally easy matter to determine the amount which each one shall pay. Thus, if the whole valuation of the Town, as that of Dorchester in 1859, be 11,000,000 dollars, and the whole tax be 75,000 dollars,

of which 2,000 dollars are to be assessed upon the Polls, and 73,000 dollars on the estates, then the rate is 6 dollars and 60 cents. on 1,000 dollars property, *or about two-thirds of one per cent.,\** and every one is required to pay this proportion of his estate as valued, however large, and no more than this, however small, his property may be. The taxes in Dorchester are somewhat *lower* than the average of the towns in Massachusetts.

The law allows the assessors to assess a part of the tax upon *Income*: that is, if a man has a salary of one, two, three, or five thousand dollars, or if he earns so much by his profession, independent of his property, this may be assumed as representing a capital that would yield so much, and he may be taxed accordingly. Yet this is not usually included in the valuation and assessment, and all Cities and Towns within my knowledge, assess all their taxes, except the poll or personal tax, on the estates.

The law allows the towns to receive the taxes for the maintenance of highways in labour, and the people may repair the roads themselves, and pay no money for this purpose, provided the town votes to do so. In this case, the town fixes the rate or value of labour, which is usually for this purpose about 10 cents, or 5 English pence *an hour*, for a man, and the same for a team of a pair of oxen and a cart. Thus, a man whose highway tax is 12 dollars, works or sends men to work twelve days of ten hours, or perhaps three men and a team three days each, always under the direction of the highway surveyor, and at such times and places as may be determined and appointed by this public officer.

This method of repairing the roads is generally preferred in the agricultural towns or rural districts; yet it is not deemed to be the most economical for the larger and commercial and manufacturing towns and the cities. These prefer to raise the money for the highways in money with that for all other purposes, and then hire such labour as may be needed for the roads and streets, and pay the men the usual wages in money.

#### *Purposes of Taxation.*

More than one-third of the taxes, in Dorchester and other towns, is for the purposes of Education for the whole people, another important item is for the repairs of old, and the opening of new, Roads. A much smaller sum is raised for the support of the native poor. The foreign paupers are supported by the State. At the town meeting of Dorchester, holden on Monday, the 28th day of April, 1860,

\* Assuming the 1,000 dollars to yield 6 per cent. per annum, the tax of 6.60 dollars on the *capital* of 1,000 dollars, would be equal to say 1 *per cent. per annum* on the *income*—a rate very different from the rates of direct assessment on *income* in England.—ED. S. J.



it was voted to raise by taxation 69,225 dollars, to be appropriated as follows:—

For the support of schools.....	\$24,025
„ payment of debts for building school-houses.....	9,000
„ repair of highways .....	8,000
„ new roads and widening old ones .....	7,500
„ support of the poor .....	4,000
„ support of lunatics in hospitals .....	300
„ fire department.....	2,000
„ police and watch .....	2,400
„ lighting streets .....	600
„ cemeteries .....	400
„ town offices .....	3,000
Miscellaneous and incidental .....	9,000
	<hr/>
	\$69,225

These financial statistics of Dorchester may be generally taken as a specimen of the financial management of the towns in the State, and perhaps of other northern States. Of course, the towns vary in connection with the difference of wants and means. The smaller towns in the interior have fewer roads, and those are less used, and therefore need less expenditure for repairs. They also have no fire department or none that is a source of expense to the public treasury; on the other hand these and other expenses are increased in the cities.

In all the towns and cities, especially in New England, the Educational expenditure is the predominant item in taxation, and makes a paramount importance in the minds of the people, and probably this is paid the most freely and cheerfully. I have never known the town of Dorchester to refuse to raise the full amount asked by the School Committee, and hardly an objection offered either by the most wealthy, who have large sums to pay, and perhaps no children to be educated, or by the less favoured classes to whom any tax on their little property is a burden.

Although these taxes are determined by the whole town in public meeting, where every voter has equal power, and where the poor, who having no property and pays only a fixed and small poll tax and whose burdens cannot be increased by any amount of appropriation, can yet vote for any amount of taxation that must be entirely paid by the estates of others, yet I have never known of any instance in which the mass of the people took advantage of their power, or where the poorer voters urged or attempted to raise extravagant sums for education or other purpose from which they or their families might derive advantage, but have none of the burden.



SERFDOM in RUSSIA at the Present Time.  
By DR. MICHELSEN, of the Board of Trade.

[Read in Section (F), Economic Science and Statistics, of the British Association for the Advancement of Science, at Oxford, 30th June, 1860.]

HISTORY shows that Bondage or Serfdom is more an European than an Asiatic institution.

In *Siberia* there are as much as 153 owners to only 1,800 serfs, while the whole of *Trans-Caucasia* counts only 44 owners. In the whole of *Asiatic Russia* where the population amounts to 2,818,948 souls, there counts in average but one bondsman to 1,530 male free-men (in the Russian statistics only the *male* population is counted), while in *European Russia* (exclusive of Poland) there are in a male population of 28,613,380 souls, 10,844,900 bondsmen or 37 per cent. of the population. The proportion, however, varies very materially in the different parts, as may be seen from the following table:—

Governments.	Male Population.	Female Population.	Bondmen.	Per Cent. of the Population.
Simhirsck .....	1,318,900	1,444,855	1,980,783	71·67
Tula .....	1,227,000	1,222,338	1,685,390	68·81
Mohilew .....	931,300	919,566	1,230,707	66·49
Archangel .....	253,000	276,477	28	0·01
Bes Arabia .....	792,000	762,617	18,344	1·18
Viatka .....	1,662,800	1,899,583	89,416	2·51
Stawropol .....	402,900	366,616	19,992	2·60
Astrachan .....	284,400	270,265	16,140	2·91
Olonez .....	263,100	291,410	22,180	4·00
Tauria .....	572,200	487,343	74,592	7·04

In the high north, Archangel and Olonez, the climate does not admit of bondage, while in the later conquests of Russia, as also in Siberia and Trans-Caucasia, bondage has but slowly found a footing. Within the triangle which may be drawn from St. Petersburg to Caminezk in Padolia, thence to the town Viatka, and thence again to St. Petersburg, lie the governments mostly crowded with serfs. The point of the triangle is situated towards Asia, and the front towards Europe, *i.e.*, the bondage percentage diminishes in proportion as it approaches Asia. The government, Moscow, situated in the centre of the triangle forms a rather exceptional point, the population (male and female) being there 2,654,700, while the number of the serfs is only 989,670, or 37 per cent. of the whole.

The greatest number is found in the South-west, in the former

Polish Ukraine, among the inhabitants of *little Russia*, in the governments Shitomer, Berdichers, Caminizk, and the neighbouring Kishenew. Thence only follow in due rank the old great Russian provinces.

The number of *serf-owners* in the whole empire is 114,697 or 0.04 per cent. of the whole population, making in average one owner to  $94\frac{1}{3}$  serfs, and we can therefore justly say, that every third free man is there an owner of about 100 serfs.

The largest serfdom is found in the governments Perm and Kiëff, where the owners possess from 329 to 2,232 serfs each. Serfdom is, generally speaking, more frequent where the possession of owners oscillates between 100 and 300 souls.

In the South and East of Russia, the possession sinks from 75 to 19 serfs per owner. The statistical development on that point within the last twenty years gives the following result:—

	Serfs.	Percentage of Population.
1837-38 .....	10,870,064	44
1857-58 .....	10,844,902	37

Serfdom has thus relatively diminished by about 7 per cent., owing partly to the liberation of the military serfs after twelve years service, and partly to the purchase of their liberty by various communities.

With the diminution of serfdom by about 25,000 souls, the population rose by  $4\frac{1}{2}$  millions or by 18 per cent. The following comparative table gives the division of serfs among the respective owners:—

Owners, with or without Land.	1837-38.		1857-58.	
	Owners.	Serfs.	Owners.	Serfs.
Noblemen without land .....	17,763	62,183	5,508	15,390
Estate owners with less than 20 serfs .....	58,457	450,037	47,465	357,496
Estate owners with from 21 to 100 .....	30,417	1,500,357	35,441	1,628,884
Ditto from 101 to 500 .....	16,740	3,634,194	19,590	3,857,555
Ditto from 501 to 1,000 .....	2,273	1,562,831	2,433	1,591,637
Above 1,000 .....	1,453	3,566,959	1,437	3,260,005
Total .....	125,103	10,776,561	81,874	10,710,967

The number of landless owners is very largely reduced, and the class is visibly on the verge of extinction, as is also that of the small owners under 20, and *even more so than that of the large owners of above 1,000 souls*. Increased, have only the middle classes, those

possessing from 100 to 500 serfs. Rather more than a third of the owners belong to the class possessing in average about 200 serfs, and somewhat less than a third are those of 2,000, while the remaining grades form the link between the two extreme classes.

About five-sixth of the total number of serfs belong to owners of above 100 souls, and if we calculate the value of a male serf 300 s. r. (50*l.*) according to Russian statistics, and of a female serf at 100 s. r. (17*l.*) the annual income of a single serf at 5 per cent. would come to about 20 s. r., or 2,000 s. r. (333*l.*) for 100 souls, independant of the income derived from land.

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## BRITISH ASSOCIATION, 1860.

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THIRTIETH *Meeting of the* BRITISH ASSOCIATION *for the Advance-*  
*ment of Science, held at* OXFORD, 27th June—4th July, 1860.

### *Section (F).—Economic Science and Statistics.*

*President.*—NASSAU W. SENIOR, M.A., late Professor of Political Economy, Oxford.

*Vice-Presidents.*—Sir John P. Boileau, Bart.; James Heywood, F.R.S.; Lord Monteagle; Monckton Miles, M.P.; Right Hon. Joseph Napier, LL.D., D.C.L.; Sir Andrew Orr; Sir J. Kay Shuttleworth, Bart.; Colonel Sykes, M.P.; William Tite, M.P.

*Secretaries.*—William Newmarch; Edmund Macrory, M.A.; Rev. J. E. T. Rogers, M.A., Magdalen Hall, Tooke Professor of Political Economy, King's College, London.

*Committee.*—Dr. Bird; Henry G. Bohn; Rev. J. Booth, LL.D.; C. Holte Bracebridge; Dr. Camps; Robert Chambers; David Chadwick; Edwin Chadwick, C.B.; William Donnelly, C.B., LL.D.; Henry Fawcett, M.A.; Joseph John Fox; J. W. Fraser; Frederick W. Haddon; James M'Connell; Professor More, LL.D.; Rev. W. Monk, M.A., F.R.A.S.; Arthur Moore; Professor Neate; Alderman Neild (Manchester); Professor Pearson; Frederick Purdy; Henry Roberts; John Shuttleworth; H. Ambrose Smith; Alderman Spiers, F.S.A.; Thomas B. Sprague, M.A.; John Strang, LL.D.; Robert Wilkinson, F.R.C.P.; Thomas Wilson, M.A.

The following Papers occupied the attention of the Section:—

#### *Thursday, 28th June, 1860.*

1. *The President.*—Opening Address.
2. *Frederick Purdy.*—On the System of Poor Law Medical Relief.
3. *Edwin Chadwick, C.B.*—On the Physiological as well as Psychological Limit to Mental Labour.

#### *Friday, 29th June, 1860.*

1. *Henry Fawcett, M.A., Fellow of Trinity Hall, Cambridge.*—Dr. Whewell on the Method of Political Economy.
2. *Rev. James Booth, LL.D., F.R.S.*—On the true Principles of an Income Tax.
3. *Henry Roberts, F.S.A.*—Notes on various Efforts to improve the Domiciliary Condition of the Labouring Classes.

#### *Saturday, 30th June, 1860.*

1. *Henry Fawcett, M.A., Fellow of Trinity Hall, Cambridge.*—On Co-operative Societies, their Social and Political Aspect.

2. *William Newmarch*.—On some suggested Schemes of Taxation, and the difficulties of them.
3. *Edwin Chadwick, C.B.*—On the Economical Results of Military Drill in popular Schools.
4. *Dr. Michelsen*.—Serfdom in Russia.

*Monday, 2nd July, 1860.*

1. *J. J. Fox*.—On the Province of the Statistician.
2. *Richard Dowden*.—Local Taxation for Local Purposes.
3. *Miss Carpenter*.—Statistics of Schools for Neglected Children.
4. *John Hitchman*.—On Sanitary Drainage of Towns.

*Tuesday, 3rd July, 1860.*

1. *E. Jarvis (Boston, U. S.)*.—On the System of Taxation prevailing in the United States.
2. *H. J. Ker Porter, M.R.I.A.*—Some hints for the Building of Cottages for Agricultural Labourers.
3. *J. M. Mitchell*.—On the Statistics of the Herring Fishery on the British Coasts.

*Note*.—A Sermon was preached before the Association at St. Mary's by Dr. Temple, the Head Master of Rugby. The Committee of Section (F) unanimously adopted a resolution, requesting Dr. Temple to publish the discourse; and accordingly it may now be had of J. H. & J. Parker, 377, Strand (price 1s.), under the title of "The Relations of Science to Religion."

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## INTERNATIONAL STATISTICAL CONGRESS, 1860.

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*The FOURTH SESSION of the INTERNATIONAL STATISTICAL CONGRESS was opened in LONDON, at KING'S COLLEGE, STRAND, on Monday, the 16th July, 1860, by H.R.H. THE PRINCE CONSORT, as President.*

THE Official Delegates and the Officers of the several Sections were as follows:—

### FOREIGN OFFICIAL DELEGATES.

AUSTRIA.—His Excellency Baron Czœrnig, Privy Councillor, Director of the Imperial Statistical Department at Vienna.

BAVARIA.—Dr. F. B. W. Hermann, State Councillor, Director of the Statistical Department at Munich, and of the General Administration of Mines and Salt Works.

BELGIUM.—M. A. Quételet, Director of the Royal Observatory, President of the Central Statistical Commission; M. A. Visschers, Member of the Board of Mines, and of the Central Statistical Commission; M. X. Heuschling, *Chef de Division* in the Ministry of the Interior, Secretary of the Central Statistical Commission.

BRAZIL.—His Excellency the Chevalier Carvalho Moreira.

DENMARK.—Dr. C. N. David, State Councillor, Director of the Statistical Department at Copenhagen.

FRANCE.—M. A. Legoyt, Director of the General Statistical Department of France in the Ministry of Agriculture, Commerce, and Public Works.

HAMBURG, LUBECK, AND BREMEN.—Dr. C. W. Asher, LL.D., Member of the Statistical Department at Hamburg.

HANOVER.—Professor Wappäus.

HOLLAND.—Dr. M. M. De Baumhauer, Director of the Statistical Department of the Ministry of the Interior; Dr. T. Ackersdyck, President of the Central Statistical Commission.

MECKLENBURG-SCHWERIN.—Baron Maltzahn, First President of the Patriotic Agricultural Society, Member of the Statistical Board of Mecklenburg-Schwerin.

NORWAY.—Professor J. K. Daa.

PRUSSIA.—Dr. E. Engel, Privy Councillor, Director of the General Statistical Department of Prussia; Dr. F. G. Schubert, Privy Councillor, Professor at the University of Königsberg, Member of the Prussian Chamber of Deputies.

RUSSIA.—Dr. J. B. Wernadski, State Councillor, Member of the Central Statistical Committee of the Ministry of the Interior; M. de Bouchen, of the Central Commission of Statistics in the Ministry of the Interior.

SAXE-COBURG AND SAXE-MEININGEN.—M. G. Hopf, Financial Councillor, Director of the Life Assurance Bank for Germany in Gotha.

SPAIN.—Count de Ripalda, Central Statistical Commission at Madrid.

SWEDEN.—Dr. F. Th. Berg, Member of the Board of Health at Stockholm, Director of the Statistical Department of Sweden.

SWITZERLAND.—M. Vogt, Director of the Federal Statistical Department at Berne; M. Kolb, of Zurich.

TURKEY.—Agop Effendi, Secretary of the Ottoman Legation at Paris.

UNITED STATES.—Judge Longstreet, and Dr. Jarvis.



## COLONIAL DELEGATES.

## AUSTRALIA:—

NEW SOUTH WALES.—Stuart A. Donaldson, Edward Hamilton, James Macarthur.

QUEENSLAND.—M. Marsh, M.P.

VICTORIA.—W. Westgarth.

SOUTH AUSTRALIA.—E. Stephens.

TASMANIA.—J. A. Youl.

NEW ZEALAND.—J. E. Fitzgerald.

BRITISH GUIANA.—W. Walker, Colonial Secretary.

CANADA.—J. T. Galt, Finance Minister.

CAPE OF GOOD HOPE.—W. Field.

CEYLON.—Sir Charles Maccarthy.

JAMAICA AND BARBADOES.—Stephen Cave, M.P.

MAURITIUS.—G. Fropier.

IONIAN ISLANDS.—H. Drummond Wolff, C.M.G., Civil Secretary.

INDIA was represented by M. Hornidge, Chief Officer of the Statistical Department at the India Office.

## THE OFFICE BEARERS OF THE CONGRESS WERE AS FOLLOWS:—

*President.*—His Royal Highness The PRINCE CONSORT.

*Vice-Presidents.*—The Right Hon. T. Milner Gibson, M.P., President of the Board of Trade; the Right Hon. W. F. Cowper, M.P., First Commissioner of Her Majesty's Works and Public Buildings.

*Honorary Vice-Presidents.*—The Official Delegates.

*Secretaries (Foreign).*—M. Le Chevalier Debrauz; M. Chatelain; M. Corr van der Maeren. (*English*) Dr. Farr, F.R.S.; J. T. Hammack, R. Valpy.

FIRST SECTION.—*Judicial Statistics.*

*President.*—The Right Hon. the Lord Brougham and Vaux.

*Vice-Presidents (Foreign).*—Agop Effendi, Delegate for Turkey; Dr. Asher, Delegate for the Hanse Towns; Professor J. K. Daa, Delegate for Norway; Judge Longstreet, Delegate for the United States. (*English*) Right Hon. Joseph Napier; Vice-Chancellor Sir W. Page Wood, V.P.R.S.

*Secretaries (Foreign).*—M. de Koulomzine. (*English*) Samuel Redgrave; Leone Levi, Barrister-at-Law; J. Hill Williams.

SECOND SECTION.—*Sanitary Statistics.*

*President.*—The Right Hon. the Earl of Shaftesbury.

*Vice-Presidents (Foreign).*—Dr. M. M. Baumhauer, Delegate for Holland; Dr. Berg, Delegate for Sweden; M. Hopf, Delegate for the Saxon Duchies. (*English*) Viscount Ebrington; Sir James Clark, Bart., F.R.S.

*Secretaries (Foreign).*—Dr. S. Neumann; Dr. A. Mülhry. (*English*) Dr. McWilliam, C.B., F.R.S.; Dr. Sutherland; Dr. Greenhill.

THIRD SECTION.—*Industrial Statistics: Agriculture and Mining.*

*President.*—The Right Hon. the Lord Stanley, M.P.

*Vice-Presidents (Foreign).*—His Excellency the Baron Czœrnig, Delegate for Austria; his Excellency the Chevalier de Carvalho Moreira, Delegate for Brazil; Count Ripalda, Delegate for Spain; M. Visschers, Delegate for Belgium; Dr. Hermann, Delegate for Bavaria. (*English*) Sir Roderick I. Murchison, D.C.L., F.R.S., V.P.R.G.S., Director-General of the Geological Survey; the Registrar-General of Ireland.

*Secretaries (Foreign).*—M. Coquerel; Dr. Otto Hübner. (*English*) Robert Hunt, F.R.S., Keeper of the Mining Records, Museum of Practical Geology; A. Bonham-Carter; Dr. Norton Shaw, Sec. R.G.S.; William Clode.

FOURTH SECTION.—*Commercial Statistics.*

*President.*—Nassau W. Senior.

*Vice-Presidents (Foreign).*—Professor Ackersdyck, Delegate for Belgium; M. David, Delegate for Denmark; Baron Maltzahn, Delegate for Mecklenburgh-Schwerin; Dr. Schubert, Delegate for Prussia. (*English*) Leonard Horner, John Crawford, Henry G. Bohn.

*Secretaries (Foreign).*—M. M. Chatelain. (*English*) William Newmarch, Alexander Redgrave, H. Reader Lack.

FIFTH SECTION.—*Census: Military and Naval Statistics.*

*President.*—The Right Hon. the Earl Stanhope.

*Vice-Presidents (Foreign).*—M. Legoyt, Delegate for France; M. Vogt, Delegate for Switzerland; Professor Wappäus, Delegate for Hanover; Dr. Wernadski, Delegate for Russia. (*English*) the Registrar-General of England; Colonel Sykes, M.P.

*Secretaries (Foreign).*—Captain Pigeard; Captain Sierakowski; Dr. Varrentrapp. (*English*) Dr. T. Graham Balfour, F.R.S.; Dr. Bryson, F.R.S.; Frederick Hendriks.

SIXTH SECTION.—*Statistical Methods, &c.*

*President.*—Monsieur A. Quételet.

*Vice-Presidents (Foreign).*—M. de Bouchen, Delegate for Russia; Dr. Engel, Delegate for Prussia; M. Kolb, Delegate for Switzerland. (*English*) G. A. Hamilton, R. Monckton Milnes, M.P.; James Heywood, F.R.S.

*Secretaries (Foreign).*—M. Corr van der Maeren; Professor Kapustine. (*English*) Samuel Brown, F.S.S., V.P., Inst. Act.; Thomas Michell, F.R.G.S.; John Winter Jones.

On Thursday, the 19th July (1860), the Official Delegates and the leading persons connected with the Congress were entertained at Dinner at the Freemasons' Tavern, by—

THE PRESIDENT AND COUNCIL OF THE STATISTICAL SOCIETY,  
THE PRESIDENT AND COUNCIL OF THE INSTITUTE OF ACTUARIES,  
AND THE ACTUARIES' CLUB.

The Chair was occupied by Colonel Sykes, M.P., and the Vice-Chairs by Mr. Jellicoe and Mr. Ansell. Nearly two hundred persons were present.

# PROCEEDINGS OF THE STATISTICAL SOCIETY.

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SESSION 1859-60.

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*First Ordinary Meeting.—Session 1859-60.*

*Tuesday, 15th November, 1859.*

Colonel Sykes, M.P., Vice-President, in the Chair.

The following Candidates were elected Fellows of the Society,  
viz.:—

Thomas Ellison Esq.		Bassett Smith, Esq.
Hon. Francis Hincks.		Patrick Macnaghten Tait, Esq.
William George Wilks, Esq.		

The Chairman gave an account of the Proceedings of Section (F), Economic Science and Statistics, of the British Association at its recent Meeting at Aberdeen.

Mr. Heywood gave an account of the recent Meeting of the National Association for the promotion of Social Science, at Bradford.

The following Paper was read:—

“On the Recent Statistics of Prussia.” By Sir Francis H. Goldsmid, Bart., M.P., Q.C.

*Second Ordinary Meeting.—Session 1859-60.*

*Tuesday, 20th December, 1859.*

Colonel Sykes, M.P., Vice-President, in the Chair.

The following Candidates were elected Fellows of the Society,  
viz.:—

John Coles, Esq.		Rev. J. E. Thorold Rogers, M.A.
Henry James Phillips, Esq.		Henry Riseborough Sharman, Esq.
Samuel Whitbread, Esq., M.P.		

The following Paper was read:—

“On the Rate of Wages in the Cotton Districts during the last  
“Twenty Years.” By David Chadwick, Esq.

*Third Ordinary Meeting.—Session 1859-60.*

*Tuesday, 17th January, 1860.*

Colonel Sykes, M.P., Vice-President, in the Chair.

The following Candidate was elected a Fellow of the Society,  
viz.:—

Edward Camps, Esq.



The following Paper was read:—

“On the Distribution and Productiveness of Taxes, with reference to the Prospective Ameliorations in the Public Revenue of the United Kingdom.” By Leone Levi, Esq.

*Fourth Ordinary Meeting.—Session 1859-60.*

*Tuesday, 21st February, 1860.*

Sir John P. Boileau, Bart., F.R.S., Vice-President, in the Chair.

The following Candidates were elected Fellows of the Society, viz.:—

Frederick Bigg, Esq.		Francis Galton, Esq.
F. Ferguson Camroux, Esq.		Philip Henry Holland, Esq.
Walter Joseph West, Esq.		

The following Paper was read:—

“On the Recent Statistics of Spain.” By Frederick Hendriks, Esq.

*Fifth Ordinary Meeting.—Session 1859-60.*

*Tuesday, 20th March, 1860.*

Charles Jellicoe, Esq., in the Chair.

The following Candidates were elected Fellows of the Society, viz.:—

T. B. L. Baker, Esq.		John Glover, Esq.
James Bennett, Esq.		Daniel Gurney, Esq.
Henry Fawcett, Esq.		Edmund Potter, Esq.

M. E. Levasseur and M. J. E. Horn, of Paris, were elected Foreign Honorary Members of the Society.

Mr. Lumley, one of the Honorary Secretaries, read a Paper

“On the Aboriginal Inhabitants of New Zealand.” By F. D. Fenton, Esq.

*Sixth Ordinary Meeting.—Session 1859-60*

*Tuesday, 17th April, 1860.*

Colonel Sykes, M.P., Vice-President, in the Chair.

The following Candidates were elected Fellows of the Society, viz.:—

Henry Freeman Hewlings, Esq.		Sir Godfrey J. Thomas, Bart.
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The following Paper was read:—

“On Indian Currency and Banking.” By William Newmarch, Esq.

*Seventh Ordinary Meeting.—Session 1859-60.*

*Tuesday, 15th May, 1860.*

Edwin Chadwick, Esq., C.B., in the Chair.

The following Candidates were elected Fellows of the Society,  
viz.:—

Robert Dudley Baxter, Esq.  
M. A. Black, Esq.

Thomas Mossom Meekin, Esq.  
John W. Willans, Esq.

The following Paper was read:—

“On the Statistics of the Poor Rate before and since the Poor  
“Law Amendment Act.” By Frederick Purdy, Esq.

*Eighth Ordinary Meeting.—Session 1859-60.*

*Tuesday, 19th June, 1860.*

Colonel Sykes, M.P., Vice-President, in the Chair.

The following Paper was read:—

“On the Application of a New Statistical Method to the Ascer-  
“tainment of the Votes of Majorities in a more Exhaustive manner.”  
By Thomas Hare, Esq.

## MISCELLANEA.

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I.—*New South Wales—Proposed New Regulation for Sale and Occupation of Lands.*

THE following is a brief summary of the provisions contained in the Land Bill of the New South Wales Government, introduced in the Session of 1860.

“ 1. The land is to be surveyed into *eighty acre* sections, divisible into portions of *forty acres* each, as near as the natural features of the land will admit.

“ 2. There is to be free selection of these lots, at *ten shillings per acre*, without any subsequent restriction or stipulation as to improvement, occupancy, or right of transfer.

“ 3. The right of entry and occupation on lands unoccupied and unsurveyed, without purchase, is acknowledged. This new class of squatters, or backwoodsmen, will have a pre-emptive right over the lands, *not exceeding 320 acres*, they may fence in. They will merely have to pay assessment, and will have priority of right to purchase at 10s. an acre after the survey has reached them.

“ 4. Land orders, transferable, will be issued on the payment of Twenty pounds for each into the treasury.

“ 5. The only lands reserved from selection are those in the county of Cumberland, and in any town or city. There are to be no reserves along railways or in the suburbs of towns, and the reserve along the sea coast and rivers will be only two chains instead of three miles as in Victoria.

“ 6. The only cases wherein the system of sale by auction shall be adopted, are in the disposal of *Town lands*, and where special surveys of not less than 320 acres are demanded. Lands so surveyed will, on the demand of any bidder, be put up in forty acre portions.

“ 7. The land is to be surveyed in blocks of 8,000 acres area, to be called Settlements, and any purchaser within any such area shall have the right of free grass over the whole of the unsold portion of the 8,000 acres.

“ 8. Every Town, Gold Field and Settlement not already Municipalised, is to have a Local Council, composed of the Government Land Commissioner and two elected Commissioners. This Council is to have the power of regulating commonage, water privileges, roads, and lands dedicated to peculiar purposes.

“ 9. Crown grants are to be issued immediately on completion of the purchase; and no minerals, except gold and silver, are to be reserved.



“ 10. Disputes are to be settled by arbitration, and simple provisions are made for dividing the expense of fencing between neighbouring owners.

These are the principal points respecting the Sale of Lands. It will be seen that, with the exception of deferred payments, they far outbid the inducements held out by the Victoria Bill. The rest of the Bill regulates the occupation of the Crown Lands by pastoral squatters.

“ 11. The Orders in Council are expressly repealed, except as relates to leases actually issued or promised, and it is declared that there shall in future be no right of renewal or pre-emption to this class of occupiers.

“ 12. In future, Occupation Licenses shall only be valid from year to year, and these licenses shall not affect the survey, selection, or sale of the land. Three months' notice will, however, be generally given prior to any extensive survey.

“ 13. The assessment on *Rivers* is to be 10 per cent. on their value; a new valuation to be made every six years.

“ 14. Licenses to take minerals, timber, stone, &c., are to be chargeable with a fee of 5*l.*; but where a defined area of mineral lands is secured to the licensee, the rent will be 5*s.* an acre.

“ 15. There will be free grass for travelling stock for half-a-mile on each side of the highways. Horses and cattle must travel at least seven miles, and sheep five miles every day.”

## II.—*Discovery of Silver in California, July, 1859.*

STATEMENTS have from time to time arrived in this country during the last nine months as regards alleged large discoveries of Silver in California. It is obviously needful to receive all such accounts with caution, if not with suspicion. In the *Morning Chronicle* of 6th June, 1860, there appeared the following detail of an alleged personal visit to the new silver region:—

“ It was only in July, 1859, that *Silver deposits* were first found in the district of Western Utah, at a place called Washoe. Within a hundred yards of the ledge in which lies the Comstock lead, there were profitable placer diggings, parallel with the ledge. A miner working his way up this placer, found his rocker invaded by a black substance, which all his efforts failed to wash out. In despair, he complained that ‘this black stuff’ had got into his gold and spoiled his work. The black substance proved to be pure sulphurets of silver; and when that was ascertained, it was the most natural thing in the world to look for the vein and find it in the ledge of rock which cropped out a short distance up the hill-side. The progress of investigation which slowly developed this new source of mineral wealth is already matter of history. The few months' claims originally bought for a few hundred dollars, ran up to a market value of \$1,000 and \$1,200 per foot. The question is constantly asked as to how this measuring by foot is counted. Let us explain. The Comstock lead runs north and South. Each individual original locator of a claim was entitled to and took up 200 feet in length of the vein running north and south. For convenience sake, three, four, five, six, or more parties united their respective claims, and formed companies. Thus the Ophir Company was formed by parties holding 1,400 feet in length of ‘lead’—or, in other words, seven original claims; and when a purchaser now buys 100 feet in Ophir, he buys, in fact, one-fourteenth of the entire mine, with all its property, facilities, machinery, incidental rights, advantages, and liabilities.

“ I examined the Ophir Company's mine. We found a shaft had been sunk from the outcroppings to the depth of say 50 or 60 feet, following the dip of the ledge at an angle of perhaps 50°. Descending the shaft we penetrated the drifts, at which only two men were at work by dim candlelight. To say that we were

amazed at the richness of the mines is to give but a faint idea of our emotions. At a depth of 40 feet the stratum of quartz containing the ore spreads to the width of 10 or 12 feet, although only an inch or two in width at the surface. The quartz became bluer in colour as we descended, is soft, and easily mined by use of the pick alone. On every side we found the ore in heavy masses, and in all grades of quality, from that which would assay \$200 or \$300 to the ton, to masses of black sulphurets so pure and soft that they could be rubbed to pieces by the naked hand. The vein of ore is irregular in its course and size. It is safe to say that its average width is two feet, while half of that width may be set down as ore, such as has assayed over \$4,000 to the ton. Occasionally we found pieces abounding in threads of pure silver, and I brought with me specimens that are over 90 per cent. of silver.

"The decayed quartz through which the silver vein runs is found rich in gold, much of it paying a dollar to the pan when washed out without crushing. All this material is carefully saved, to be worked over after the necessary machinery has been obtained. If means of bringing water to Virginia are not found, this gold dirt will pay for hauling to the Carson or Truckee rivers to be worked, and much of it would pay to send to San Francisco for that purpose. We will not attempt to convey to the mind of the reader an adequate idea of the richness of this Ophir mine to the depth at which it has already been worked. The general law of silver mining hitherto has shown that the veins continue to an indefinite depth, growing richer and larger as they descend. Should the law hold good here, Potosi was but a placer in value compared with this Ophir, or the Spanish mine of Virginia city. But it remains yet to be proved whether the law holds good; and prudent men will wait for demonstration of the fact before taking it for granted.

"I also visited and examined the Spanish claim. It has been worked a little deeper than the adjoining claim of the Ophir Company; and all that we have said of the apparent richness of the latter applies equally to the Spanish claim. This claim is operated by Mexicans accustomed to working silver mines in their own country, and they opened the vein precisely in accordance with Mexican custom. They have sunk a great square shaft to the width of 10 or 12 feet, propping up the roof with timbers, and cutting a flight of steps in the rock on the lower incline, by which they, descending the shaft, bring up the ore in hide baskets by a strap passed around their foreheads. The Mexican operatives pronounce the mine 'mucho bueno,' and declare it promises to exceed that of any other they have ever seen. If I mistake not, the richest silver mines ever worked in our sister republic never averaged over \$100 to the ton. Yet there are lying broken up, in front of the Ophir and Spanish shafts, separated in classified piles of different qualities, ready for working up as soon as the proper machinery is procured, not less than 1,000 or 1,200 tons of ore, which it is perfectly safe to say will yield an average of \$400 to the ton, and perhaps a great deal more. These, be it remembered, however, are estimates, not proved results. I believe them accurate, or at least not over stated; but I do not offer them as facts to be relied upon, but only as suggestions for investigation.

"By this time the fame of the Comstock lead has spread all over the United States and Europe; and what everybody now desires to know is, whether the available silver discoveries are to be confined to that particular ledge. There are at least a dozen silver leads already discovered outside the Comstock, and now held at prices varying from \$5 to \$75 per foot, which in the croppings promise quite as well as did the Comstock when first taken up; while there are others, surface specimens of which assay twice as much as did similar specimens from that famous lead. The Comstock was the first lead discovered, and the only one for some time; but, good as it is, it by no means follows that it is the best existing in this region of country. The reader must remember that it was not discovered as the result of search for silver, but purely accidentally; and the geological indications in various other places give greater promise of wealth yet undeveloped than has hitherto been found. Rich as the Comstock lead has proved, I shall not be surprised at the discovery of still richer leads; indeed, I shall be exceedingly disappointed if the next year or



two does not reveal to an astonished world whole miles of Washoe silver leads as valuable as those already worked with so much success."

We have no means of verifying the statement given in this account, but it seems to be possible that at least some important discoveries of *Silver* have been recently made in California. We believe that the large production of *Quicksilver* in that country is steadily kept up and increases.—  
ED. S. J.

### III.—*Wesleyan Methodism in Great Britain in 1860.*

"THE annual returns just prepared, with reference to the position of the Wesleyan Methodist communion, show a considerable increase in the number of Members in the Society as compared with former years. The advance, it will be noticed, has been general throughout the country, except in Lincolnshire, which has for years been a great stronghold of Methodism. The returns from North Wales, the Isle of Man, and the Shetland Islands, have not been made public; but the various other districts are thus reported on:—

DISTRICTS.	Members in Society.	Increase.	On Trial.
London .....	20,080	1,210	1,352
Bedford and Northampton .....	11,285	661	931
Kent .....	5,081	149	722
Norwich and Lynn .....	6,466	634	643
Oxford .....	6,402	565	1,071
Portsmouth .....	4,973	219	372
Channel Islands .....	3,200	14	190
Devonport .....	7,365	554	1,457
Cornwall .....	12,723	1,370	1,853
Exeter .....	5,237	289	573
 Bristol .....	 9,462	 414	 1,020
Bath .....	7,309	132	748
First South Wales .....	3,172	284	446
Second South Wales .....	4,938	826	980
Birmingham and Shrewsbury .....	16,482	639	1,143
Macclesfield .....	9,864	636	547
Liverpool .....	11,836	712	1,142
Manchester and Bolton .....	23,633	1,264	1,808
Halifax and Bradford .....	15,968	187	936
Leeds, .....	15,851	540	1,043
 Sheffield .....	 9,193	 155	 395
Nottingham and Derby .....	12,887	706	1,045
Lincoln .....	11,837	—	1,110
Hull .....	14,757	438	903
York .....	21,389	435	1,082
Whitby and Darlington .....	8,383	259	681
Newcastle .....	10,097	1,558	1,862
Carlisle .....	3,516	376	343
Edinburgh and Aberdeen .....	2,594	237	344

"These returns, so far as they go, exhibit a total of 277,580 Members in the Society, being an increase of 15,469 on the year. There are also upwards of 26,000 Members 'on trial.' "



#### IV.—*High Price of Butchers' Meat.—Curious Meeting of Working Men.*

THE following report of the proceedings of a public meeting of working men at Bristol, appeared in the *Times* of 16th June, 1860. We insert it here as valuable in connection with the present state of the facts as concerns the high price of Butchers' Meat, and as still more valuable as an evidence of the tenacity with which false notions of political economy hold their ground in spite of the clearest evidence of their unsoundness.

"A large open air meeting, principally of working men, convened by operatives in the employ of the Bristol and Exeter Railway Company and the Bristol United Gas Company, was held on Wednesday evening on Brandon hill, Bristol, to consider the best means to be adopted for lowering the present exorbitant prices of butchers' meat. The attendance was estimated at from 12,000 to 15,000, the great majority of whom, however, were spectators, and not listeners. The object of the meeting was unexceptional, and the proceedings were for the most part conducted in an orderly manner, but the arguments of the speakers, if they deserve that name, were supremely ridiculous.

"The chair was taken by Mr. Gotheridge, of the Redcross Street Pottery, who stated that they were met to endeavour to do away with what they considered a painful monopoly. Mr. J. Thompson, one of the conveners of the meeting, moved the first resolution, which declared it to be the opinion of the meeting 'that the present high price of butchers' meat requires the careful consideration of every thinking man, and that some strong measures ought to be taken to reduce it to a fair and reasonable price.' The chief complaint of the speaker was against 'a class of men who called themselves *cattle dealers*, or *cattle jobbers*, who went about the country buying up the produce of this beautiful land, and by so doing were enabled to get their own price for everything, and who cared very little for the distress that they thus occasioned to the working classes.' This resolution was seconded by Mr. E. Valentine, and carried.

"Mr. Godding moved the next resolution,—'That the working men of Bristol abstain altogether from purchasing any butchers' meat until the price of it is much reduced.' This speaker entertained his hearers by calculating how much meat a working man could purchase daily out of his weekly earnings, beginning with one earning 1*l.* per week, and descending to 15*s.* and 10*s.* Assuming that each workman had a wife and four children, and allowing a consumption of 1½*lb.* per day, at 10*d.* per *lb.*, Mr. Godding worked out his sum in subtraction, and showed the amount which would be left after paying the butcher's bill. Mr. Gridley, jun., who seconded the motion, hoped that they would carry out their schemes in a manly spirit, and shortly afterwards came to 'the point.' 'If there was a scarcity in the land,' said Mr. Godding, 'why should they raise the prices? Let them have the usual prices as long as there was any meat left, and when there was none left let them go without it;' at which the meeting laughed and cheered. This resolution was also unanimously carried.

"Mr. W. Nott next addressed the meeting and denounced 'jobbers' in general—the chandlers, the corn merchants, the 'tater' jobbers, &c., Mr. Wadge, who followed, pointed out several causes which tended to raise the price of meat, which he embodied in the following curious resolution:—

"'That it is the opinion of this meeting that the system, adopted too generally, for butchers to contract with persons annually, at a given price, for joints indiscriminately, is injurious to the working man. When the price for meat rises beyond such contract prices they have only a choice of the coarsest joints; and while the working classes are deprived of their general necessary quantity of animal food, the parties contracting feel not the daily wants at their board consequent upon the present market prices, which have now risen to near a famine point as far as the labouring portions of society are concerned.'

"He added that he thought the working men were badly treated in this country.

In the first place, they were scarcely given wages enough to maintain their families, and in the next place the price of food was so high that they could not afford to buy it. This was done by the graziers, the monopolizers, who went from market to market buying what cattle they could, a few here and a few there, until at last they got a good many on their hands, and sent to market just what they thought proper, and charged as much as they pleased for them. Mr. John Hayward seconded the motion, and it was carried *nem. con.*

“The Chairman next put a motion to the following effect:—That it was the opinion of that meeting that a committee be appointed, consisting of a certain number of persons, including the chairman, with power to draw up a petition, and make the proper arrangements for its presentation to both Houses of Parliament, praying them to pass an Act prohibiting the slaughter of lambs or calves for sale before they had attained the age of eight months. (A Voice,—‘How shall we be able to get any butter or cheese then?’) This proposition was also affirmed. Mr. William Seaward next addressed the meeting, and informed his audience that he had three pigs in his sty, for which he had been offered 11s. a score, which was an enormous price for pork— $8\frac{1}{2}d.$  per lb. When he subsequently asked the meeting to bind themselves down not to eat any more butchers’ meat until they could get it for  $5d.$  or  $6d.$  per pound, he was met by a pertinent recommendation, ‘Sell thy pigs to-morrow at  $5d.$  a pound.’ The speaker made no sign. Subsequently the working-men resolved ‘to abstain from flesh meat until the price of prime joints was reduced to  $7d.$ , second cuts  $6d.$  and  $5d.$ ’ This resolution was affirmed unanimously. Then followed votes of thanks to the conveners and to the chairman, and the proceedings terminated. Throughout the speeches there was an absence of any attempt to account for the present high prices of meat except by vague generalities of monopolies and jobbing, and not one of the working men appeared to be conscious of the fact that the improved condition of the order to which he belonged was the primary cause of the grievance against which the meeting was convened to protest.”

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#### V.—Statutes of the New Russian Bank.

THE *Times* of 5th July, 1860, contains the following outline:—

“The statutes of the new Russian State Bank have just been officially published in St. Petersburg. The capital is fixed at 15,000,000 roubles (about 2,500,000*l.*), assigned by the State, and the profits are to be applied partly to the redemption of the 5 per cent. bank-notes, and of the loans of the credit establishments to the Treasury, and partly to the accumulation, in the first instance, of a reserve of 3,000,000 roubles. In case of losses exceeding this reserve, the original capital is not to be trencied upon, but the deficiency is to be covered from the finances of the empire. Provisions are introduced enacting that neither private deposits nor the capital and reserve of the bank can be employed in the general expenditure of the State. The bank, both at the head office and its branches, will keep the Government account. Its principal duties will be the redemption of the *paper money*, as mentioned above, the liquidation of the deposits in the old credit establishments, and the general management of the note circulation. The Government guarantee the bank against having to draw upon its deposits or capital to fulfil the above obligations by the deposit of a regulated amount in treasury bonds, which may in case of necessity be disposed of in the open market. With the liabilities of the old establishments the bank will also receive their assets. The general operations of the bank will be discounting, the purchase or sale of the precious metals, and the usual business of a bank. Minute rules are laid down for the carrying on of the latter. The administration will consist of a Governor and Deputy and six Directors, nominated by the State, under the audit of three delegates; two to be elected by the Council of the credit establishments, and one by the President of the Council.

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VI.—*Oxford Free Public Library and Reading Room.—Results, 1854-60.* †

WE copy from the *Oxford Herald* the following interesting account of the results of the Oxford Free Library :—

“ Oxford has reason to be proud of its Public Library. Like most institutions of a similar kind, it encountered every species of opposition at its commencement, but the experience of six years has completely refuted the predictions of its opponents, and more than fulfilled the anticipations of its promoters. The shades of opposition were many and various. Some objected to the adoption of the Free Libraries Act on economical grounds, for the ‘ignorant impatience of taxation,’ so much deplored by Chancellors of the Exchequer, manifested itself even in so small a matter as the imposition of a tax of one halfpenny or a penny in the pound for a purpose purely educational. It would be difficult, even were it necessary or desirable, to analyse and enumerate the different phases of the opposition which prejudice on the one hand and self-interest on the other assumed during the preliminary discussions on this subject. We have no wish to recall the past, because those who were most strenuous in their opposition,—those whose prognostications were most decided and gloomy,—have long since confessed their errors, and are now numbered amongst the advocates and supporters of the institution. The public voice is unanimous in expressing its approval, and the tax is cheerfully paid by the great body of the citizens. The middle and working classes have chiefly participated in the benefits of the institution, and it is a fact, as remarkable as it is gratifying, that although 750,000 persons have visited the reading room since it was opened, the utmost order has prevailed, and in no one instance has the presence of a police officer been required.”

“ We have much pleasure in laying before our readers the estimated returns of the Library from the commencement in June, 1854, to the present time. The first return shows the number of book readers and classification of the books and the number of daily visitors to the reading room :—

*Reference Department.*

During the Years	Estimate of Daily Visitors.	Total Number of Book Readers.	Classification of Books Read.			
			Novels and Tales.	Poetry, the Drama, and Miscellaneous Literature.	History, Travels, and Biography.	Theology, Philosophy, Science, Art.
1854- 5	116,428	26,991				
1855- 6	127,601	24,588	15,996	2,363	3,758	2,471
1856- 7	124,751	19,196	11,679	3,093	2,256	2,171
1857- 8	130,262	18,257	11,611	3,466	1,639	1,541
1858- 9	122,984	12,305	8,718	1,625	834	1,128
1859-60	127,185	9,979	7,112	1,182	1,050	634

“ Two singular facts will strike the reader in glancing through the above return. It will be seen that the number of visitors to the reading room and library for the last five years, instead of showing a progressive increase, exhibits a gradual decreasing tendency with the exception of the year 1857-8, when, owing to the excitement consequent on the Indian Mutiny, the attendance reached as high as 130,262. We are unwilling to interpret this fact as a symptom of declining popularity because those who are familiar with the institution are well aware that it never was held in higher estimation by the public than at the present moment. The falling off in the number of book readers, from 26,991 in 1854-5 to 9,979 last year, is still more



significant; but this circumstance, as well as the diminution in the attendance, is caused by the closing of the reading room on Sunday evenings and the formation of the Lending Library.

“The *Lending Library* was opened on the 5th of November, 1857, and its operations have realized the most sanguine expectations of its originators. The Statistical returns from the commencement to the present time are as follows:—

*Lending Library.*

During the Years	Applicants for Books.	Volumes Issued.	Classification.	
			Novels and Tales.	History and General Literature.
1857- 8....	5,347	7,371	4,903	2,468
1858- 9....	12,294	16,484	11,754	4,670
1859-60....	13,839	19,809	14,638	5,171

“The number of volumes in the *Reference Department* of the Library is 2,600, and in the *Lending Department* 2,813, of which latter number 1,013 are works of fiction, and 1800 history and miscellaneous literature. The number of registered borrowers is 1,186. The circulation of the whole number of volumes in the Library has, therefore, averaged, during the past year, nearly seven times the total number.

“The classification of the books read, both in the reference and lending departments, shows some remarkable results. Novels and romances, in both instances, are the favourites of the reading public. Of the total number of volumes issued last year from the Lending Library, amounting to 19,809, no less than 14,638 are returned as ‘Novels and Tales,’ while in every other department of literature,—poetry, the drama, history, travels, biography, &c.,—the number of books issued was only 5,171. To those who advocate a ‘solid’ description of reading, this fact will be a subject of regret, but a glance through the catalogue will show that the fictious literature in the Library is, in the main, of the best possible character.

“The *Lending Library* has been eminently successful. The number of borrowers has increased in less than two years and a-half from 5,347 to 13,839; while during the same period the number of volumes issued has increased from 7,371 to 19,809. The experience of the Oxford Library proves that people, and particularly the poorer classes, prefer having books to read at their own firesides, for, notwithstanding the high class character of the works in the reference library, the annual issue in that department has gradually declined, and in a still greater ratio since the establishment of the Lending Library. With the fact before us that the number of book readers has decreased in six years not less than 60 per cent., and with the prospect of a still greater diminution, it is a question for consideration how far it is desirable to maintain the Reference Library on the existing scale as a distinct and separate department. At least one-half the books in the Reference Library might be transferred to the Lending Library, with manifest advantage to this more popular branch of the institution.

“In conclusion, we can only assert, in the language of Mr. David Chadwick, of Manchester, at the last meeting of the National Association for the Promotion of Social Science, that this institution ‘has afforded to the mass of the people better means of improving their intellectual, moral, and social position than any other single movement of recent date.’”

### VII.—*Terminable Annuities.—Eligibility as a mode of Borrowing.*

THE proposal of the Government in July last, to raise several millions by way of Terminable Annuities, for the purposes of Fortifications, has directed attention to a class of important questions connected with finance. On Friday, the 27th July (1860), the attention of the House of Commons was called to the subject in a speech eminently lucid and useful by Mr. Hubbard. Mr. Hubbard's reputation stands deservedly so high, both as a scientific and practical financier, that we insert in this place the best report of his speech we have been able to find.

We also append the comments of the City Editor of the *Times* upon the same question.

“ Mr. Hubbard, in calling the attention of the Government to the impolicy of raising money on loan by means of *Terminable Annuities*, said he would deal with the question as briefly as possible, but would put before the house the usual means by which public loans were raised in this country. He would first say a few words on loans raised in the shape of Consolidated Three per Cents.: no less a sum than 16,000,000*l.* had thus been raised in 1855. The price of that loan was 88*l.* per cent., and the discount to the contractor for his risk, 2 per cent., which he agreed was a fair allowance. The country therefore had the opportunity of raising money at 3*l.* 8*s.* per cent.

“ The next instance was that of the following year, when a loan of 5,000,000*l.* was contracted for at 90*l.*; the interest to the contractor was 6*s.* 6*d.*, making the price of stock to him 89*l.* 13*s.* 6*d.* The market price was 91*l.*, therefore the contractor only had an advantage over the public of 1*l.* 6*s.* 6*d.* That loan was contracted in February. On the 19th of May in the same year, a second loan of 5,000,000*l.* was contracted for at the price of 93*l.*, the interest to the contractor being 3*s.* 3*d.*; the price to him, therefore, was 92*l.* 6*s.* 9*d.*, and his advantage over the public 1*l.* 13*s.* 3*d.*, the interest to the country being 3*l.* 4*s.* There were thus three instances in which over 25,000,000*l.* were borrowed on Consols at an average diminution from the market price of the day of 2 per cent., and an average interest of 3*l.* 7*s.* 6*d.*, which was so moderate a rate of interest that no one could suppose that any other stock could be raised at so small a charge. He knew very well that it was said of Consols, ‘if you borrow on Consols you add to the National Debt,’ but that depended very much upon whether they were repaid or not; and the debt so paid between the 5th of April, 1845, and 1846, amounted to no less than 4,600,000*l.*, and between April, 1846, and April, 1847, to 2,700,000*l.*, and that had been done by the usual machinery in such a way as not in the smallest way to affect the stock market, as would be seen by looking at the share list, and observing the price of stocks on the day after the Government broker bought in, which was at regular specified quarters. In the first quarter of 1845, the price was 99*l.*; the second, 99*l.*; the third, 98½*l.*; and the fourth, 94*l.* In the first quarter of 1846, the price was 96*l.*; the second, 96*l.*; the third, 95*l.*; and the fourth, 93*l.* So that in those eight quarters, there was the slightest possible effect in the stock, consequent upon the Government broker buying in, the depreciation in the latter year being attributable to entirely other causes, while in 1849, 1850, and 1851, when 4,500,000*l.* were redeemed, there was still less difference.

“ It thus appeared that money could be raised on Consols, and repaid without disturbing the market, and that the money could be obtained by Government at about 2 per cent. only above the regular market price; and although it was true that the funds were generally high when the Government broker sold out, and low when he bought in, that was not peculiar to the case of raising money by means of stock, but applied to all descriptions of loan. Allowing 2 per cent. to be lost in the first instance in the turn of the market, and assuming that 2 per cent. more would be lost before they could replace it through the medium of the Commissioners



for the Reduction of the National Debt, that would be 4 per cent. spread over thirty years, or about  $\frac{1}{4}$  per cent., which would amount to 3*l.* 12*s.* 6*d.*, as the entire cost of raising public money through Consols. There was another mode of raising money—namely, by Exchequer Bills; but it was notorious that Exchequer Bills could not be thrown into the market in large quantities without diminishing their value, and the public was unfavourable to that species of Government security; but with respect to Exchequer Bonds, he thought they were a very convenient mode of representing the National Debt. They were perfectly legitimate, and a kind of security which he should be glad to see have a more permanent standing, which they would if a larger number were in circulation. He thought them a most convenient mode of raising any large sum of money which the country might require.

“He now came to the question of raising money by Terminable Annuities; and he would allude to the one mentioned the other day by the First Lord of the Treasury, and which he termed the dead-weight annuity. The sum of 585,745*l.* was taken by the Bank in 1823, at a time when the funds were exceedingly disturbed, so that they could only make an approximation, not only of the value at which it would be in Consols, but the rate of interest which the Bank of England derived from the investment. They yielded an interest of 4*l.* 2*s.* 1*d.* In 1842, when the income tax was imposed through the medium of an old Act of Parliament, it made a grievous mistake, for it taxed both capital and interest, and instead of receiving 4*l.* 2*s.* 1*d.*, the Bank was obliged to recast the whole schedule, and reduce the interest to 3*l.* 18*s.* 2*d.* In April, 1847, there was a further change in the income tax, which forced them again to re-cast their schedule, and the interest was reduced to 3*l.* 15*s.* 6*d.*; and in 1851 it was again reduced to 3*l.* 5*s.* 7*d.*, and in October of the same year to 3*l.* 1*s.* 9*d.* So that they might well imagine how uncertain a security this was, and how little capitalists could look forward to it as a valid security. The next annuity was in 1834, which was left in the hands of the Bank of England, and the story of this was remarkable. The Bank of England in that year had to receive back from the Government one-fourth of the capital it had lent. The Government had to repay 4,080,000*l.*, and it was agreed to put it into Reduced Three per Cents., the amount of capital invested being 3,671,000*l.*; and from some cause or other, instead of receiving these Reduced Three per Cents., the Bank ultimately received an annuity for twenty-six years, calculated on precisely the same rate of interest which the Three per Cent. Annuities bore, and the large amount of 64,000*l.* was absolutely confiscated for six years and a-half by the operation of the income tax from the capital of the Bank of England for the payment of that debt: 4,000*l.* was lost owing to the operation of the income tax, and 60,000*l.* had never been paid to the Bank at all.

“The next annuity was that which was known by the name of the Long Annuities, which had been created at different periods from 1780 to 1860, in which year they were to expire. These Long Annuities paid habitually 10*s.* interest, but when the holders and investors became frightened at the additional income tax the price fell, and the holders protected themselves not only against the diminution which had taken place, but from what they apprehended further. He had been obliged to state some particulars at variance with the calculations of the Chancellor of the Exchequer, but he agreed with him as to the reduction which might be taken for the risk. The contract was made for the last loan on the 10th of April, and in May, when Consols were at 90 $\frac{1}{4}$ , the omnium representing the new loan was quoted at 2 per cent. premium; therefore there remained 88 $\frac{1}{4}$  as the value to be given by the contractor in arranging the taking up of the loan, but that sum was not given by the contractors immediately, but there was an allowance for interest, which the Government made to them which amounted to 1*l.* 2*s.*, and which, if deducted from the 100*l.*, left 98*l.* 18*s.*, whereas Consols being at 88*l.*, no less than 10*l.* 18*s.* was actually given for taking up that annuity, so that when the Chancellor of the Exchequer told them that the interest per cent. on the annuity was 3*l.* 15*s.*, he must have been mistaken, for a deeper and more accurate scrutiny would convince him that the rate of interest in reality was no less than 5*l.* 4*s.* 2*d.* per cent. (hear, hear).



“ It was evident that at the last sale of annuities, the Government had made a very bad and most unsatisfactory bargain, and one which the country would not wish to see renewed. To suppose that the apparent value of this species of security was the real value would be a woeful mistake; it was an investment which might be very suitable for the patriotic fund, but a large proportion of the holders were very small holders, who were only anxious to obtain a certain amount of income while their lives lasted. As to the argument alleged in favour of the terminable annuities, that they constituted a standing engagement for keeping down the national debt, that was, in truth, an illusion, for though they were bound to redeem that special liability, the Government were not prevented from contracting debts in another shape, and experience showed, that while at three different periods sums of 10,000,000*l.* each had been paid off, 30,000,000*l.* had been borrowed in the same period. He had heard the argument adduced, that unless the House of Commons were bound down by obligations, they would never agree to levy taxes to diminish debt, though he would not give full assent to its justice. The disadvantage of these Terminable Annuities was, that they confounded things totally distinct, namely, capital and interest—that they introduced most inaccurate phraseology, and that they tended to countenance the idea of confiscation. Therefore, he expressed his distinct disapprobation of that mode of levying money. If the country must be bound down to pay certain sums, then let them make a loan payable by equal instalments over a particular period, and let the payment be divided into capital and interest. The great demerit of these annuities was their complexity, and he would say, if a loan were to be made, let it be made in the simplest form. A system of finance to be perfect must be simple, the more complicated it was, the more unsuited it was to its purpose, and the more injurious in its operation upon the interests of the state (hear, hear).”

The comments of the City article of the *Times* of 30th July (1860), were as follows :—

“ The unanimity with which the defence proposals of Lord Palmerston have been received is expected to preclude any prolonged discussion of them. The only point for difference of opinion will be as to the manner in which the requisite 9,000,000*l.* is to be raised. We are asked to select between Consols and Terminable Annuities. As to the relative advantages of the respective methods, there can theoretically be no difference of opinion. Every prudent person in contracting a debt would lay the foundation for its redemption, and, if possible, by a process that should effect it in an automatic manner, and occasion him no further concern. It is this that can be achieved by Terminable Annuities. Of course Consols can be redeemed also by an annual provision, and at an average market price, which would involve as much chance of gain as of loss; but it is felt that if this provision is left dependent on the occurrence of a surplus, or upon special sums being voted from time to time, it will most likely be neglected. By terminable Annuities, at all events, we avoid both trouble and uncertainty. But the question is, are the conditions of choice equal? Even if they are not, it would be worth while to incur some moderate sacrifice to gain the conveniences which one form of loan presents over the other.

“ The general view has been, that the sacrifice required would be moderate. The discussions already raised on the subject, however, have not been favourable to that conclusion, and in the Stock Exchange and the city the opinion unquestionably is, that the difference between the cost of a loan in Terminable Annuities and in Consols would be far beyond anything that would be justified, even by the advantages which the former are admitted to possess. The majority of experienced capitalists seem to believe that there will be no disposition to subscribe for the proposed thirty years' Annuities at terms, which, after allowing a due provision to replace the principal, will yield the holders less than  $3\frac{3}{4}$  per cent. per annum. Consols, on the other hand, they would take at a price to yield only about  $3\frac{1}{4}$  per cent. The nation, therefore, would pay a difference of nearly one-half per cent. on

the entire loan for the full period, and would find at the end of the transaction that they had actually disbursed almost 2,000,000*l.* more than they would have been required to pay if the 9,000,000*l.* had been borrowed in Consols, and a sinking fund had been established for their extinction at that date. Even the present value of an annuity of a half per cent. per annum on 9,000,000*l.* for thirty years would be about 850,000*l.* So that the actual and immediate cash loss would amount to that sum.

“ It may, perhaps, be contended, that the tenders will be far more favourable than has thus been assumed; but that is a point which, unfortunately, can be determined only by actual experiment. It must be remembered not merely that Consols command, from their superior marketability, a higher price than any other security, but that they possess the advantage over Annuities of being free from liability to unjust pressure of the income tax. Those who subscribe for Annuities must not only calculate the weight of the existing tax—they must assume its continuance, and also the probability of its increase; and as uncertainty is one of the most expensive elements in financial affairs, the insurance exacted against this contingency will be heavy, especially as it is found that no pledge from any Minister on the subject can be relied upon. True, it may be urged, that as only a small portion of the 9,000,000*l.* is to be raised immediately, the chance of getting a good price for it will be proportionably increased; but the dealers know that a small loan in an exceptional stock implies a narrow market, and that very adverse calculations must be made on that account. For this reason the Turkish 4 per cent. loan, guaranteed by the English Government, may be bought at nearly par.

“ Finally, it is to be remarked, that while the moral argument is altogether in favour of Terminable Annuities when there is anything like a fair choice in comparison with Consols, it is unequivocally against them if they are to involve an extortionate sacrifice. There is a vast difference between the borrower who seizes every good opportunity of giving smoothness and stability to his future plans, and one who feels that his want of firmness and self-control is such that there will be no chance of his fulfilling a future duty, unless he ties himself down at once and at any cost. The public, therefore, must remember, that among the sacrifices which Terminable Annuities may necessitate, the national character is more or less concerned. If we cannot trust ourselves to exercise such economy as is expedient, and to make with punctuality any annual provision we may have agreed to be desirable, unless there is some contrivance to render a violation of the plan impossible, we are but like children with a money-box. Our statesman may act down to this low estimate, or take the bolder course of encouraging the nation to assert a higher capacity. Unquestionably all financial authorities would view with regret a necessity for borrowing on the dearest terms as a consequence of a condition so irrational. Moreover, it is impossible not to apprehend that the rigid virtue which Terminable Annuities are supposed to possess in enforcing an extinction of debt is more apparent than real. A nation is not to be deceived into economy, and if it is resolved to spend money, the money will be borrowed in one way or another, or existing liabilities will be postponed, in the face of all previous contrivances to the contrary. We have seen both Mr. Disraeli and Mr. Gladstone renewing the Exchequer Bonds which were created on onerous terms, in order that we might be compelled to extinguish them at a specific date; and this exhibition far more than counterbalanced all the fine moral felicitations with which these securities were originally introduced.

“ On the whole there can be little doubt that Consols now constitute our true financial resource. Notwithstanding the magnitude of their amount, we may comfort ourselves with the reflection, that in their burden they represent little more than half the annual sum that other nations, unable to borrow at less than 5 or 6 per cent., would be compelled to pay; that this burden is being largely, although imperceptibly, reduced year by year through the gold discoveries, and that during the past generation such portions of the national revenue as might have been appropriated to their reduction, have been given up to the much better purpose of putting our commerce into a position to command the world, and thus



of producing an augmentation of national wealth, which, could the total be laid before us, would make our debt appear if not a 'flea-bite,' a matter upon which even the most anxious of our economists might look without anxiety."

VIII.—*List of References to the Official Publication of the Annual Poor Rate Returns of England and Wales.*

Parochial Years.	Reference to the Official Publication of the Return.	Parochial Years.	Reference to the Official Publication of the Return.
1775-76	Second Report of Select Committee of the House of Commons on Poor Laws. Sess. 1777.	1829-30 1830-31 1831-32 1832-33 1833-34	Poor Rate Returns. House of Commons Paper, No. 444, Sess. 1835.
1782-83 1783-84 1784-85	Report from Select Committee of the House of Commons on certain Returns relative to the state of the Poor. Sess. 1787.	1834-35 1835-36 1836-37.... 1837-38....	2nd Annual Report of the Poor Law Commissioners, Appendix E. 3rd ditto, Appendix D. 4th " " D.
1802-3	Abstract of Returns relative to the Poor. House of Commons Paper, No. 175, Sess. 1804.	1838-39.... 1839-40.... 1840-41.... 1841-42....	5th " " E. 7th " " F. 8th " " F. 9th " " D.
1812-13 1813-14 1814-15	Abstract of Returns relative to the Poor. House of Commons Paper, No. 82, Sess. 1818.	1842-43.... 1843-44.... 1844-45.... 1845-46....	10th " " C. 11th " " C. 12th " " C. 13th " " C.
1815-16 1816-17 1817-18 1818-19 1819-20 1820-21	Report from the Select Committee on Poor Rate Returns. House of Commons Papers, No. 556, Sess. 1822.	1846-47.... 1847-48 1848-49....	14th " " C. 1st Annual Report of the Poor Law Board, Appendix. 2nd ditto, Appendix.
1821-22 1822-23 1823-24	Report from the Select Committee on Poor Rate Returns. House of Commons Paper, No. 334, Sess. 1825.	1849-50.... 1850-51.... 1851-52.... 1852-53....	3rd " " " 4th " " " 5th " " " 6th " " "
1824-25 1825-26 1826-27 1827-28 1828-29	Poor Rate Returns. House of Commons Paper, No. 83, Sess. 1830.	1853-54.... 1854-55.... 1855-56.... 1856-57.... 1857-58.... 1858-59....	7th " " " 8th " " " 9th " " " 10th " " " 11th " " " 12th " " "

*Note.*—The *Returns* are published for each parish separately up to 1837-38 inclusively; since that year the Union totals only have been published. The Returns from the separate parishes since 1838, have been bound and deposited in the Office of the Poor Law Board.



IX.—*Irremovable Poor.*—*Report of the Commons Committee of 1860.*

“THE Select Committee appointed on the operation of the Act 9 and 10 Vict., c. 66, which enacts that no poor person shall be removable who shall have resided *five years* in any parish, and of the Acts 10 and 11 Vict., c. 110, and 11 and 12 Vict., c. 110, which enact that the relief given to such irremovable persons shall be charged upon the common fund of the Union,—have considered the matters to them referred, and have come to the following Resolutions, which they have agreed to report to the House :—

“ ‘ 1. That the operation of the Act (9 and 10 Vict., c. 66) is beneficial to the poor in mitigating the hardships necessarily incidental to any law of removal.

“ ‘ 2. That the period of residence, in order to acquire a *status* of irremovability (if that *status* be continued), may, with advantage to the poor, be reduced from five years to *three*.

“ ‘ 3. That the area of residence necessary for acquiring a *status* of irremovability (if that *status* be continued), may also, with advantage to the poor, be extended from the parish to the *whole Union*.

“ ‘ 4. That *orphan children*, who may on the death of their surviving parent be removable, shall have the *status* of irremovability which their surviving parent may have acquired.

“ ‘ 5. That the cost of the maintenance of such *Lunatics* in asylums as are now chargeable to a parish within a Union should be charged on the common fund of such Union.

“ ‘ 6. That the contributions of parishes in Unions to the common fund should be based upon a consideration of the *annual rateable value*, and the amount of the population combined in one sum, by adding the amount of the population, according to the last census, to the amount of the parochial assessment, and by taking the result as the assessment in pounds sterling.

“ ‘ The Committee desire further to report, that during this inquiry evidence has been submitted to them of some peculiar evils which attend the removal of the Irish poor when chargeable in England. These chiefly relate to the mode and form of conducting removals, and they would, doubtless, be lessened by the adoption of the foregoing resolutions, as greater facilities of becoming irremovable (by limiting the period and extending the area of residence) would be afforded to the poor.

“ ‘ The Committee, however, in order to prevent entirely the recurrence of the evils referred to, would strongly recommend that legislative effect should be given to the following precautions, viz.:—

“ ‘ (a) That no warrant shall be issued for the removal of any poor person from England to Ireland, except by justices assembled at a petty session, or by a stipendiary magistrate.

“ ‘ (b) That the said justices or magistrate shall not issue the warrant without seeing the head of the family to be removed, and being satisfied that each of the parties sought to be removed is in such a state of health as not to be liable to injury by removal.

“ ‘ (c) That a statement to this effect shall be inserted in the warrant, with the name and age of every child under the age of 16 years so ordered to be removed, together with the name of the place where the justices find the pauper to have been born or to have resided.

“ ‘ (d) That during the winter months no woman, or child under the age of 14 shall be sent across the Channel as a deck passenger.

“ ‘ (e) That in all cases of removal of Irish paupers, the removing parish shall be bound to defray the cost of the removal of any person ordered to be removed, to the place in Ireland which, upon evidence before the justices, shall appear to be the place of birth or residence of such person.

“ ‘ (f) That a copy of the warrant and the depositions shall be sent, if required, to the Board of Guardians in Ireland of the Union to which the removal is to be made.

“ ‘ The Committee desire to express their opinion that the laws of settlement and removal should receive the early attention of the Legislature.—August 6, 1860.’ ”

The recommendations in this Report are of considerable importance, and if adopted, will tend materially to advance in a practical direction the views of those persons who are in favour of adopting a larger area of *Union* as the basis of parochial charges.

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN  
OF THE  
MARRIAGES IN ENGLAND AND WALES DURING THE FIRST QUARTER  
(JANUARY—MARCH), AND OF THE BIRTHS AND DEATHS DURING  
THE SECOND QUARTER (APRIL—JUNE), OF 1860.

THIS Return comprises the BIRTHS and DEATHS registered by 2,197 Registrars in all the districts of England during the Spring Quarter that ended on June 30th, 1860; and the MARRIAGES in 12,418 churches or chapels, about 4,263 registered places of worship unconnected with the Established Church, and 631 Superintendent Registrars' offices, in the quarter that ended on March 31st, 1860.

The leading facts in the Return may be stated thus:—the marriages in the first quarter of this year were not quite so numerous as they were in the same quarter of 1859, but exceeded those of any corresponding period in the eleven years 1848-58; the marriage-rate, namely, the proportion of persons married to the then existing population, was also slightly above the average for the quarter; the births in the second quarter (that ended June 30th) were fewer than in the same quarter of last year, and were also fewer than they would have been if the average spring birth-rate had been maintained; the deaths exhibit in no faint characters the effects of an ungenial season, and the rate of mortality was higher, with only two exceptions, than in any corresponding quarter of the previous ten years. The general aspect of the Return is not satisfactory.

MARRIAGES.—In the first three months of 1860, the total number of men and women who married was 70,396, being a *great decrease* on the 101,000 married

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, *returned in the Years*  
1854-60, and in the *QUARTERS of those Years.*

*Calendar YEARS, 1854-60 :—Numbers.*

Years .....	'60.	'59.	'58.	'57.	'56.	'55.	'54.
Marriages No.	—	167,900	156,070	159,097	159,337	152,113	159,727
<i>Births</i> ..... ,	—	689,558	655,481	663,071	657,453	635,043	634,405
<i>Deaths</i> ..... ,	—	441,249	449,656	419,815	390,506	425,703	437,905

QUARTERS of each Calendar Year 1854-60.

(I.) MARRIAGES :—*Numbers.*

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	35,198	35,429	29,918	33,321	33,427	29,186	33,234
June ..... ,	—	42,045	39,890	41,267	38,820	38,549	40,518
Septmbr. .... ,	—	39,926	38,599	38,669	39,089	37,308	38,182
Decmbr. .... ,	—	50,500	47,663	45,840	48,001	47,070	47,793



## QUARTERS of each Calendar Year, 1854-60.

## (II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	183,206	175,429	170,959	170,430	169,250	166,225	160,785
June ..... „	173,914	175,727	169,115	170,444	173,263	165,277	172,457
Septmbr. .... „	—	168,311	157,445	161,181	157,462	154,700	154,724
Decmbr. .... „	—	170,091	157,962	161,016	157,478	148,841	146,439

## (III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	122,642	121,682	125,819	108,665	103,014	134,542	111,843
June ..... „	110,878	105,778	107,142	100,046	100,099	106,493	102,586
Septmbr. .... „	—	104,339	98,142	100,528	91,155	87,646	113,843
Decmbr. .... „	—	109,450	118,553	110,576	96,238	97,022	109,633

in the preceding Christmas quarter. The difference, it may be re-assuring to know, is not the result of sudden depression in trade or other calamity, but of laws of habit and convenience, by virtue of which the closing months of the year are most, and the opening months least, preferred for the accomplishment of nuptial vows. The annual marriage-rate for January, February, and March was 1.420 per cent., whilst the average rate for the same period is 1.416.

The marriage-rate for the quarter was as high as 1.556 in 1853, and as low as 1.248 in 1858.

BIRTHS.—The number of boys and girls born in the quarter that ended June 30th was 173,914, the number in the previous quarter that ended March 31st having been 183,206. On an average of years, as many children are born in the spring quarter as the winter, but in the present year there was, as these figures show, a decrease that is not unimportant.

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1854-60, and the QUARTERS of those Years.*

## Calendar YEARS, 1854-60:—General Percentage Results.

YEARS .....	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
Estmtd. Popln. of England in thousands in middle of Year .....	19,994	—	19,745	19,523	19,305	19,045	18,787	18,619
Persons Married Per ct. }	—	1.692	1.700	1.598	1.648	1.674	1.620	1.716
Births .... „	—	3.404	3.492	3.357	3.435	3.452	3.380	3.407
Deaths .... „	—	2.218	2.235	2.303	2.175	2.050	2.266	2.352



QUARTERS of each Calendar Year, 1854-60.

(I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	1·420	1·416	1·462	1·248	1·408	1·416	1·266	1·456
June..... „	—	1·704	1·712	1·642	1·714	1·638	1·648	1·750
Septmbr. „	—	1·630	1·602	1·566	1·592	1·626	1·574	1·626
Decmbr. „	—	2·000	2·020	1·930	1·876	1·990	1·978	2·030

(II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	3·693	3·554	3·621	3·567	3·600	3·585	3·603	3·520
June .... „	3·495	3·558	3·577	3·480	3·548	3·656	3·534	3·722
Septmbr. „	—	3·278	3·377	3·195	3·308	3·275	3·261	3·294
Decmbr. „	—	3·232	3·402	3·198	3·295	3·264	3·128	3·111

(III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	2·472	2·460	2·512	2·625	2·295	2·182	2·916	2·449
June..... „	2·228	2·195	2·153	2·205	2·083	2·112	2·277	2·214
Septmbr. „	—	2·042	2·093	1·992	2·063	1·896	1·848	2·423
Decmbr. „	—	2·182	2·189	2·400	2·263	1·995	2·039	2·329

The Births in the quarter were to the population in the annual proportion of 3·495 per cent., whilst the *average* rate is 3·558. It may be added, that the birth-rate was *lower* than in any spring quarter of the previous ten years, except those of 1853 and 1858, and in both those periods the mortality was above the average, as was also the mortality of the antecedent winter quarters.

INCREASE OF POPULATION.—In the 91 days of the quarter the Births exceeded the Deaths by 63,036. This excess represents the natural increase of the population in that period; the increase, aided by ingress from Scotland, Ireland, and more distant parts, is more considerable; and at the present time it is probably very near the truth to state, that England and Wales contain a population of twenty millions.

The *emigration* of the last quarter consisted of 48,626 persons, who sailed from ports in the United Kingdom at which there are Government emigration officers. By distributing 8,260, who are not distinguished as regards the country of their birth, proportionally over the rest who are thus distinguished, it appears that 9,437 were English, 3,461 Scotch, 33,438 Irish, and 2,290 were foreigners. The United States were the destination of three-fourths of the whole number. Of the English emigrants 5,495 chose the United States, 2,792 the Australian Colonies.

Although in the emigration to America the Irish were five times as numerous as the English, a considerably less number of the former, as compared with the latter, went to Australia; whilst as regards persons of Scotch origin, it is remarkable that nearly as many went to the North American Colonies as to the United States, and more than twice as many went to Australia as to either of those parts of America. National character is in part the cause of these differences; but

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine  
Spring QUARTERS ended 30th June, 1860.

1	2	3	4		5	6	7		8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.		
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.				
						In-door.	Out-door.			
1858	£	s. d.	d. d. d.	d. d. d.	s. s. s.					
30 June	97 $\frac{1}{8}$	44 1	4 $\frac{1}{4}$ —6 5 $\frac{1}{8}$	4 $\frac{1}{2}$ —6 $\frac{1}{2}$ 5 $\frac{1}{2}$	140—185 162	119,234	752,278	54.3		
30 Sept.	96 $\frac{1}{2}$	44 7	4 $\frac{1}{4}$ —6 $\frac{1}{4}$ 5 $\frac{1}{4}$	4 $\frac{1}{2}$ —6 $\frac{1}{2}$ 5 $\frac{1}{2}$	65—90 77	107,197	705,301	61.0		
31 Dec.	98 $\frac{1}{4}$	41 9	4—6 $\frac{1}{2}$ 5 $\frac{1}{4}$	4 $\frac{1}{4}$ —6 $\frac{3}{4}$ 5 $\frac{1}{2}$	80—95 87	115,751	710,904	43.8		
1859										
31 Mar.	95 $\frac{5}{8}$	40 8	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	4 $\frac{3}{4}$ —7 5 $\frac{7}{8}$	80—100 90	122,854	742,964	43.3		
30 June	92 $\frac{7}{8}$	47 3	4 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{5}{8}$	5—7 6	85—110 97	109,150	710,410	53.7		
30 Sept.	95 $\frac{3}{8}$	44 0	4 $\frac{1}{4}$ —6 $\frac{1}{4}$ 5 $\frac{1}{4}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	65—105 85	100,582	682,867	62.8		
31 Dec.	96 $\frac{1}{8}$	43 4	4—6 $\frac{1}{2}$ 5 $\frac{1}{4}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	85—120 102	109,429	683,962	43.3		
1860										
31 Mar.	94 $\frac{5}{8}$	44 5	3 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—145 130	118,523	717,264	38.8		
30 June	94 $\frac{7}{8}$	52 8	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	5 $\frac{1}{2}$ —7 $\frac{1}{2}$ 6 $\frac{1}{2}$	125—160 142	107,050	692,384	50.5		

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The *average* of the highest and of the lowest prices is here shown in cols. 4, 5, and 6, and not the *absolute* highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns relate to 645 Unions, &c., comprising a population of 17,670,935 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1858, to—Insane Persons, 19,487; Vagrants, 2,265. The rest of the paupers on that day amounted to 880,280.

they are chiefly to be referred to the better or worse condition, in life of the emigrants.\*

PRICES, THE WEATHER, AND PAUPERISM.—*Wheat* has risen in price; the average in the three months ending June 30th, was 52s. 8d. per quarter. In the same period of last year it was 47s. 3d., and in that of 1858 it was 44s. 1d. The dearness both of bread and meat has been sensibly felt by the labouring class. The average price of *beef* was 5 $\frac{3}{4}$  per lb., that of mutton 6 $\frac{1}{2}$ d., as sold in the carcase at Leadenhall and Newgate Markets. Taking for review the nine quarterly periods that have passed since March, 1858, beef has lately risen above previous prices, that of the early part of last year being excepted; and mutton has ranged still higher. The average price of superior *mutton* was last quarter 7 $\frac{1}{2}$ d., higher by three farthings than in the previous nine months; that of superior beef

DEATHS in the Spring Quarters, ended June 30th, 1853-60.—Numbers.

DEATHS, &c.	1860.	Total 1850-59, (10 Years.)	1859.	1858.	1857.	1856.	1855.	1854.	1853.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i> .....	56,031	519,688	53,519	55,302	51,367	51,962	52,562	53,717	54,131
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and <i>Country Parishes</i> ...	54,847	503,057	52,259	51,840	48,679	48,137	52,931	48,869	53,510
All England .....	110,878	1,022,745	105,778	107,142	100,046	100,099	106,493	102,586	107,641

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Spring Quarters, ended June 30th, 1850-60.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Spring Quarters, 1850-59.	Average Annual Rate of Mortality per Cent. of 10 Spring Quarters, 1850-59.	Annual Rate of Mortality per Cent. in the Spring Quarter 1860.
		June 6-7th, 1841.	March 31st, 1851.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i> .....	No. 2,149,800	No. 6,838,069	No. 8,247,017	No. 519,688	Per ct. 2·346	Per ct. 2·305
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i> .....	35,175,115	9,076,079	9,680,592	503,057	2·028	2·155
All England .....	37,324,915	15,914,148	17,927,609	1,022,745	2·195	2·228

\* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 7,834, while the birthplace of 8,260 was not distinguished; in the above statement a proportional number of these have been added to those returned as of English origin.



was  $6\frac{3}{4}d.$ , and showed a less increase. *Inferior beef* was a penny dearer than it had been in the beginning of the year. The prices of both qualities of beef and mutton were *higher* than in the June quarters of 1858-9, except that of inferior beef ( $4\frac{3}{4}d.$ ), which was the same as respects the two June quarters of 1859-60. York Regent *potatoes* sold at the waterside market, Southwark, at an average price of 142s. 6d. per ton: they were not so dear as in the same quarter of 1858 (162s. 6d.), but much dearer than in that of last year (97s. 6d.)

The number of *paupers*, both in-door and out-door, were less last quarter than they were in the same period of 1859; but the decrease was inconsiderable. A decrease more important is observed when they are compared with those of 1858.

The temperature of the air, barometrical pressure, rain and other elements of the weather, which has been of unusual character, are minutely and skilfully described by Mr. Glaisher, in the appendix to this report. He states that both days and nights in April were remarkably cold; those in May were both somewhat warmer than usual; in June both were cold, particularly the high day-temperatures, which were lower than in May though usually they are higher by seven degrees. April was colder than it had been previously in any year since 1839; and we must travel back to 1821 to find so cold a June. June was colder than May at Guernsey, in Cornwall and Devonshire, and near the sea, south of latitude  $53^{\circ}$ . The mean temperature of the quarter at Greenwich was  $50.5^{\circ}$ , which is less by  $2.3^{\circ}$  than the average of the same quarter in 19 years. At Greenwich the rain-fall in June was 5.8 in.; as far back as 1815 there is no instance of so large a fall in June. This fall was, however, greatly exceeded at stations south of Greenwich, particularly in Hampshire.

STATE OF THE PUBLIC HEALTH.—The *deaths* registered in the three months that ended June 30th were 110,878; a larger number than was returned in any previous June quarter (1848-59). The extent to which life was invaded and destroyed by causes that have been described, badness of weather and dearness of food, can be only partially discovered by comparing the mortality with an average derived from seasons both healthy and unhealthy; but it may be stated that the annual rate of mortality last quarter was 2.228 per cent. of the population, while the average of ten previous springs was 2.195. In other words the mortality was such that if it had been maintained for a year, out of a hundred thousand persons 33 would have died in excess of the number to whom a season that could not be represented as healthy, but only of average character, would have been fatal.

If the mortality had been at the rate of 17 in a thousand annually, which is ascertained to be the rule of *selected healthy districts*, instead of the actual rate (22), the deaths in the whole of England and Wales last quarter would have been 85,283; and 25,595 persons would, when the period had closed, still have formed as many units in the sum of human existence. An excess of deaths which is not decreed by inexorable fate may very properly be termed “unnatural,” though it is quite true that, only the conditions being different, it is nature that *killeth* as well as *giveth life*.

It is a remarkable and interesting fact that if two millions of acres on which the *chief towns* of England are situated, be distinguished from the remaining thirty-five that hold small towns and country parishes, it is found that the rate of mortality on the former (2.305 per cent. per annum) was *below* the average of last quarter, whereas on the latter the rate 2.155, was *above* the average. The average rates were respectively 2.346 and 2.028. Although the time may be distant when cities will be as healthful as rural districts, or the inferiority which our English poet ascribed to “the town” as the handiwork of man become much less apparent in point of salubrity than it is at present, it cannot be questioned that large populations have even now advantages of a nature favourable to health which villages do not possess. The highest attainable health is probably to be sought in a happy combination of both states—*rus in urbe*. The words of an excellent popular writer may prove to be no dream, but a well-founded expectation; he believes that we shall ultimately obtain “a complete interpenetration of city and country, a complete fusion of their different modes of life, and a combination of the advantages

of both, such as no country in the world has ever seen.”\* But it may be asked, whether it is forbidden by this last expression to accept as a perfect model even Nebuchadnezzar’s Babylon, which the distinguished writer himself has extolled.

In LONDON 14,894 persons died in the quarter. The metropolis lost about a thousand more lives than in the healthier spring of 1859. Pulmonary complaints were very fatal. The mortality from zymotic diseases generally was comparatively low; in this class measles chiefly prevailed.

The EASTERN COUNTIES show an increase in the deaths, which number 6,230. The medical attendant of a lady who died at Colchester from erysipelas considers that bad sewerage was the cause of the death: “The public sewers in the neighbourhood were so defective in trapping, that the house [where she lived] was “poisoned with the stench.” The Registrar of Radwinter mentions that the parish of Hempstead has generally more deaths from fever than all the rest of his district; and he complains of the indecent overcrowding of cottages. It is stated that ague has probably never been so prevalent at Wenhaston (Blything) as in last quarter; it was caused by the miasma from saturated marsh lands near the sea. Able bodied men were the class most subject to it. In Norfolk diphtheria has prevailed at Holt, South Walsham, and Wells; small-pox at King’s Lynn, where it has been fatal to the unvaccinated.

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\* Charles Kingsley’s *Miscellanies*: “Great Cities.”

MARRIAGES Registered in Quarters ended 31st March, 1858-60; and  
BIRTHS and DEATHS in Quarters ended 30th June, 1858-60.

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1851. (Persons.) No.	4 5 6 MARRIAGES in Quarters ended 31st March.		
			'60. No.	'59. No.	'58. No.
ENGLD. & WALES.... Totals	37,324,915	17,927,609	35,198	35,429	29,918
I. London .....	78,029	2,362,236	5,668	5,752	4,872
II. South Eastern .....	4,065,935	1,628,416	2,499	2,564	2,229
III. South Midland .....	3,201,290	1,234,332	1,671	1,636	1,513
IV. Eastern .....	3,214,099	1,113,982	1,486	1,662	1,481
V. South Western .....	4,993,660	1,803,261	3,220	3,073	2,764
VI. West Midland .....	3,865,332	2,136,573	4,026	4,405	3,618
VII. North Midland .....	3,540,797	1,215,501	1,982	1,963	1,748
VIII. North Western .....	2,000,227	2,488,438	6,369	6,175	4,799
IX. Yorkshire .....	3,654,636	1,789,047	4,019	3,934	3,222
X. Northern .....	3,492,322	969,126	2,060	2,111	1,820
XI. Monmthsh. & Wales	5,218,588	1,186,697	2,198	2,154	1,852

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th June.			11 12 13 DEATHS in Quarters ended 30th June.		
	'60. No.	'59. No.	'58. No.	'60. No.	'59. No.	'58. No.
ENGLD. & WALES.... Totals	173,914	175,727	169,115	110,878	105,778	107,142
I. London .....	22,184	22,777	21,628	14,894	13,813	14,557
II. South Eastern .....	13,635	14,248	13,577	9,225	8,511	8,830
III. South Midland .....	10,835	11,179	10,479	7,054	6,174	6,279
IV. Eastern .....	9,547	9,939	9,397	6,230	5,432	6,193
V. South Western .....	14,533	14,859	14,761	10,071	9,918	9,187
VI. West Midland .....	22,318	21,722	21,366	12,960	13,420	12,446
VII. North Midland .....	11,466	11,358	11,135	6,912	6,929	6,899
VIII. North Western .....	27,535	27,869	26,456	17,655	16,756	17,896
IX. Yorkshire .....	19,014	18,607	18,126	11,881	11,601	11,375
X. Northern .....	11,055	10,928	10,743	6,325	6,265	5,963
XI. Monmthsh. & Wales	11,792	12,241	11,447	7,671	7,679	7,517



## REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING JUNE 30TH, 1860.

By JAMES GLAISHER, ESQ., F.R.S., &c., *Sec. of the British Meteorological Society.*

*The cold weather* which set in on January 25, and which was prevalent to the end of the last quarter, continued, with the exception of the 19 days following May 8, till the end of the present quarter.

The mean daily deficiency of temperature for the 38 days beginning April 1 amounted to  $3\frac{1}{4}^{\circ}$ , and for the 34 days ending June 30, was as large at  $4\frac{1}{4}^{\circ}$ ; the average daily deficiency for these 72 days was  $3\frac{1}{2}^{\circ}$ . The remaining 19 days, viz., from May 8 to May 26, were warm, and their temperatures were daily in excess over their averages to the amount of  $3\frac{1}{2}^{\circ}$ .

*The mean high day temperature* in April was  $3^{\circ}3$  below; in May was  $1^{\circ}2$  above; and in June was the very large amount of  $6^{\circ}5$  below their respective averages.

*The mean low night temperature* in April was  $3^{\circ}2$  below; in May was  $0^{\circ}5$  above; and in June was  $1^{\circ}8$  below their averages.

Therefore, both the days and nights in *April* were remarkably cold, and to an almost equal amount; in *May* both were somewhat warmer than usual; and in *June* both were cold, particularly the high day temperatures, which were distinguished by being of lower value than in *May*, when usually they are higher to the amount of 7 degrees, and being lower than any as far back as 1840, which is as far as trustworthy records extend.

*The mean temperature* of April was  $3^{\circ}6$  in defect; in May was  $1^{\circ}0$  in excess; and in June was  $4^{\circ}4$  in defect as compared with their respective averages of the preceding 19 years. As compared with the year 1859, April was  $3^{\circ}7$  colder; May was  $0^{\circ}7$  warmer; and June was  $6^{\circ}6$  colder.

The month of *April* was colder than any April since the year 1839, and we must travel back to the year 1821 to find so cold a June.

The temperature of the month of *May* exceeded that of April everywhere, to the amount of  $7^{\circ}$ ,  $8^{\circ}$ , and  $9^{\circ}$  at extreme northern stations, and of  $9^{\circ}$ ,  $10^{\circ}$ , and  $11^{\circ}$  at midland and southern stations.

The month of *June* was colder than May at Guernsey, in Cornwall and Devonshire, and near the sea south of latitude  $53^{\circ}$ ; and was somewhat warmer at places situated north of this parallel.

*The mean pressure of the atmosphere* in April was a little above; in May was a little below; and in June was much below, their averages. The pressure was less than in any June since 1852. The changes of pressure of the atmosphere have been constant during the last quarter as in the preceding quarter.

The range of the barometer's readings at extreme southern stations was 1.2 inch in April; 1.0 inch in May; and somewhat less than an inch in June; these values gradually increased going northward to 1.9 inch in April; to 1.3 inch in May; and something more than an inch in June at extreme northern stations.

The temperature of the dew-point in April was 3°·4 in defect, being very nearly the same in amount as that of the air; and therefore the degree of humidity was of its average value; in May it was 0·8 in excess, being somewhat less than the excess of temperature of the air, and the air was slightly drier than the average; in June its defect was 1°·3, whilst that of the air was 4°·4, so that the air in June was remarkably humid.

The fall of rain at Greenwich in April was 0·8 in. in defect; in May was 1·8 in. in excess, and in June was 3·9 inches in excess. The total fall in the quarter was 10·7 in., being 4·9 in. over the average for those three months. The fall of rain since 1st January is 15·5 in., being 4·8 in. in excess, all of which fell in May and June; the fall in the latter month was 5·8 in., and is three times the average fall for the month. The fall in the month of June from the year 1815 is shown in the following table:—

FALL of RAIN in the Month of JUNE at GREENWICH, from 1815 to 1860.

Years.	Amount in Inches.	Years.	Amount in Inches.	Years.	Amount in Inches.	Years.	Amount in Inches.	Years.	Amount in Inches.	Years.	Amount in Inches.
1815	1·9	1823	1·2	1831	2·1	1839	1·9	1847	1·5	1854	1·0
1816	2·4	1824	3·8	1832	3·3	1840	1·5	1848	3·5	1855	0·7
1817	1·4	1825	0·8	1833	2·2	1841	2·7	1849	0·2	1856	1·6
1818	0·7	1826	1·1	1834	1·5	1842	1·0	1850	0·9	1857	2·7
1819	2·5	1827	0·7	1835	2·4	1843	1·3	1851	1·3	1858	1·2
1820	2·3	1828	2·2	1836	1·1	1844	1·8	1852	4·6	1859	1·4
1821	2·4	1829	1·7	1837	1·0	1845	1·9	1853	2·8	1860	5·8
1822	0·9	1830	2·6	1838	5·1	1846	0·5				

From this table it will be seen that from the years 1815 to 1837, there was no instance of a fall so large as 4 in.; in 1838 there was one of 5·1 in.; and in the year 1852 one of 4·6 in., but back to 1815 there is no instance of a fall so large as in the present June.

This large fall was, however, greatly exceeded at stations situated south of Greenwich, and particularly in Hampshire.

The temperature of vegetation, as indicated by a thermometer placed on grass, was below 30° on 15 nights; was between 30° and 40° on 35 nights. In April it was as low as 20°, in May as 27°, and in June, on three nights it but slightly exceeded 30°. Those exceeding cold nights, together with want of sun-heat during the day, has caused vegetation to be very backward.

The wind, which was remarkable in the preceding quarter for long-continued rapid motion, has been, although less continuously rapid, as remarkable for the season of the year; during each month the air was moving quickly for one hour out of three, night and day. In April it blew mostly from N.E., and was continuous for 70 hours, beginning the 18th; for 66 hours from the 24th, and for considerable periods at other times. The greatest pressure was 12 lbs. on the square foot. In May the direction was S.W., blowing strongly from 10 hours to 20 hours at different times, and for 90 hours following 26th May, during which gale pressures of 23 lbs. were recorded. In June it blew from S.W. mostly, for 40 hours continuously on two occasions, and for 60 hours from 27th June. On 2nd June pressure of 23 lbs. were recorded. This kind of windy weather has been prevalent all this year.

The mean temperature of the air at Greenwich for the three months ending



May, constituting the three spring months, was 45°·9, being 0°·5 below the average of the preceding 89 years.

1860. Months.		Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
		Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames				
		Mean.	Diff. from Aver- age of 89 Years.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.		Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.
April .....	42·9	-2·9	-3·6	40·1	-3·4	36·7	-3·4	18·1	-0·1	46·2	·218	-.031	2·5	-0·4	
May .....	53·8	+1·3	+1·0	50·0	+0·9	46·2	+0·8	20·9	+0·7	54·0	·313	+·013	3·5	+0·1	
June .....	54·8	-3·3	-4·4	52·2	-2·7	49·7	-1·3	16·5	-4·8	59·2	·357	-.017	4·0	-0·2	
Mean.....	50·5	-1·6	-2·3	47·4	-1·7	44·2	-1·3	18·5	-1·4	·	·296	-.012	3·3	-0·2	

1860. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Hori- zontal Move- ment of the Air.	Reading of Thermometer on Grass				
	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Amnt.	Diff. from Aver- age of 45 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
April .....	79	0	In. 29·796	In. +·064	Gr. 549	Gr. + 5	In. 1·0	In. -0·8	Miles. —	13	16	1	19·8	41·0
May .....	75	- 1	29·746	-·016	536	- 2	3·9	+1·8	—	2	16	13	26·8	49·7
June .....	82	+ 9	29·613	-·190	532	+ 1	5·8	+3·9	—	0	3	27	30·3	55·0
Mean.....	79	+ 3	29·718	-·047	539	+ 1	Sum 10·7	Sum +4·9	Mean —	Sum 15	Sum 35	Sum 41	Lowest 19·8	Highest 55·0

*Note.*—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

*Hail fell* on 28 days during the quarter, of which 14 were in April, 6 in May, and 8 in June.

*Snow fell* on 16 days in April, between the 1st and 24th, generally over the country, on the 21st at Guernsey; and on the 27th, 28th, and 29th of May.

*Fog prevailed* on 12 nights in April, 16 days in May, and 10 days in June.

*Swallows* were first seen on 10th April at Royston and Barnstaple.

*Cuckoo* was first heard on 4th April at Apsley; and on the 6th at Hartwell.

The *Lime* was in leaf between 20th April and 4th May; the *Chesnut* between 3rd and 30th April; the *Hawthorn* between 4th and 28th April; the *Oak* about 24th April; the *Elm* about 29th April.

*Lilac* in blossom 14th to 26th May, remarkably late.

The *Apple* in blossom 21st April to 17th May; the *Pear* from 2nd April to 3rd May; the *Plum* 3rd April to 3rd May; and the *Cherry* 15th April to 1st May, at different parts of the country.



ENGLAND.—Meteorological Table, Quarter ended 30th June, 1860.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey .....	29·619	68·5	35·0	33·5	21·1	9·3	49·6	90
Exeter .....	29·590	74·2	32·4	41·8	30·7	15·4	50·8	83
Ventnor .....	29·603	66·0	34·0	32·0	29·3	10·2	54·8	76
Barnstaple .....	29·567	78·6	31·5	47·1	32·2	14·7	51·1	81
Royal Observatory	29·590	76·5	28·2	48·3	37·1	18·5	53·8	78
Royston .....	29·620	76·3	29·3	47·0	36·2	19·1	52·9	82
Lampeter .....	29·577	74·0	25·2	48·8	45·3	18·1	49·3	88
Norwich .....	29·563	74·0	30·0	44·0	33·1	16·4	50·5	83
Belvoir Castle ...	29·530	77·3	26·5	50·8	38·8	18·4	48·8	87
Liverpool .....	29·627	69·7	34·8	34·9	25·5	11·6	50·6	76
Wakefield .....	29·576	76·7	25·0	51·7	41·2	19·1	49·5	77
Leeds .....	29·576	77·0	29·0	48·0	37·6	17·3	50·5	72
Stonyhurst .....	29·529	73·6	28·4	45·2	34·5	18·6	49·0	79
Scarborough .....	29·626	68·1	31·0	37·1	28·5	9·9	47·0	89
Isle of Man .....	29·550	69·1	30·0	39·1	29·9	14·8	47·5	92
North Shields ...	29·626	67·0	28·0	39·0	30·1	13·8	47·6	86

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey .....	1·9	8	5	7	10	4·4	50	11·5
Exeter .....	1·6	8	4	9	9	6·6	69	11·5
Ventnor .....	—	3	6	9	11	—	50	10·2
Barnstaple .....	1·2	5	4	10	11	4·6	60	13·2
Royal Observatory	—	4	5	8	12	7·1	50	10·7
Royston .....	—	7	5	8	10	6·4	65	9·2
Lampeter .....	1·0	7	5	10	8	6·7	57	12·7
Norwich .....	1·8	5	6	11	8	7·0	43	9·5
Belvoir Castle ...	1·9	7	4	9	10	6·5	44	6·7
Liverpool .....	1·3	—	—	—	—	6·9	44	6·2
Wakefield .....	1·8	7	6	7	8	7·1	59	8·5
Leeds .....	1·9	7	6	7	9	6·7	61	7·9
Stonyhurst .....	0·6	7	7	7	9	7·3	60	12·3
Scarborough .....	3·0	8	6	7	9	—	19	4·9
Isle of Man .....	1·5	6	8	9	8	4·6	49	9·6
North Shields ...	1·7	7	7	8	7	6·3	59	7·8

Trade of United Kingdom, 1860-59-8.—*Distribution of Exports from, United Kingdom according to the Declared Real Value of the Exports; and the Computed Real Value (exclusive) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise ( <i>excluding Gold and Silver</i> ), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Three Months.					
	1860.		1859.		1858.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
<b>I.—FOREIGN COUNTRIES:</b>	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	1,553,	245,	1,719,	307,	1,424,	1
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	3,946,	4,933,	2,782,	4,594,	2,546,	3,4
Western Europe; viz., France, Portugal (with the Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	4,758,	2,295,	4,996,	2,146,	3,740,	2,2
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	810,	1,547,	892,	1,471,	405,	1,6
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	2,666,	2,040,	3,012,	1,901,	1,429,	1,4
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	29,	20,	44,	56,	47,	
Western Africa	330,	271,	138,	243,	269,	1
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, and Bourbon..	9,	13,	4,	*215,	17,	
Indian Seas, Siam, Singapore, Sumatra, Java, and Philippines	310,	538,	119,	295,	195,	3
China, including Hong Kong	2,843,	1,467,	2,331,	976,	1,579,	6
South Sea Islands	—	3,	—	—	—	
United States, including California	11,088,	5,886,	6,909,	6,271,	5,551,	2,6
Mexico and Central America	133,	155,	127,	118,	33,	1
Foreign West Indies	365,	342,	353,	481,	399,	5
South America, (Northern,) New Granada, Venezuela, and Ecuador	129,	220,	127,	224,	113,	1
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres	632,	1,531,	748,	1,388,	532,	1,2
„ (Pacific,) Peru, Bolivia, Chili, and Patagonia	1,117,	571,	782,	516,	1,009,	5
Whale Fisheries; Grnlnd., Davis's Straits, Southn. Whale Fishery, Falkland Islands....	—	—	—	6,	11,	—
<i>Total.—Foreign Countries</i>	30,718,	22,077,	25,083,	21,208,	19,299,	15,5
<b>II.—BRITISH POSSESSIONS:</b>						
British India and Ceylon	2,350,	4,158,	2,099,	5,145,	1,611,	3,9
Austral. Cols.—New South Wales and Victoria	635,	1,921,	367,	1,691,	244,	1,7
„ „ So. Aus., Tasm., and N. Zea.	94,	391,	5,	354,	13,	4
British North America	388,	512,	320,	716,	348,	4
„ W. Indies with Btsh. Guiana & Honduras	817,	563,	755,	536,	648,	5
Mauritius	384,	130,	560,	125,	2,69,	1
Channel Islands	147,	166,	85,	163,	74,	1
Cape and Natal	358,	467,	256,	473,	244,	4
Brt. W. Co. of Af., with St. Helena & Ascension	12,	97,	28,	109,	28,	
<i>Total.—British Possessions</i>	5,185,	8,405,	4,475,	9,312,	3,479,	7,9
General Total.....£	35,903,	30,482,	29,558,	30,520,	22,778,	23,5

\* £200,000, Telegraphic Wires.

IMPORTS.—(United Kingdom.)—First Five Months (*Jan.—May*)  
1860-59-8-7.—*Computed Real Value, at Port of Entry, of Articles of  
Foreign and Colonial Merchandise Imported into United Kingdom.*

(000's omitted.)

(First Five Months.) FOREIGN ARTICLES IMPORTED.		1860.	1859.	1858.	1857.
		£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool ....	18,752,	12,044,	13,173,	13,369,
	Wool (Sheep's)..	3,308,	3,063,	2,479,	3,299,
	Silk .....	4,137,	4,568,	2,279,	6,226,
	Flax .....	769,	881,	445,	719,
	Hemp .....	398,	567,	282,	360,
	Indigo .....	676,	707,	490,	695,
		28,040,	21,800,	19,148,	24,668,
,, ,, <i>Various.</i>	Hides .....	1,218,	747,	540,	1,304,
	Oils .....	1,040,	939,	979,	1,016,
	Metals .....	1,304,	1,151,	1,119,	1,142,
	Tallow .....	527,	330,	466,	683,
	Timber.....	1,058,	1,096,	638,	1,157,
		5,147,	4,263,	3,742,	5,302,
,, ,, <i>Agricul.</i>	Guano .....	626,	339,	1,930,	504,
	Seeds .....	947,	1,011,	560,	638,
		1,573,	1,350,	2,490,	1,142,
TROPICAL, & C., PRODUCE.	Tea ... ..	3,811,	2,235,	1,905,	2,313,
	Coffee .....	793,	419,	524,	390,
	Sugar & Molasses	4,277,	3,900,	4,108,	5,112,
	Tobacco ....	312,	277,	407,	583,
	Rice .....	244,	147,	595,	417,
	Fruits .....	251,	140,	140,	358,
	Wine .....	1,783,	841,	729,	1,526,
	Spirits .....	964,	709,	389,	1,159,
		12,435,	8,668,	8,797,	11,858,
FOOD .....	Grain and Meal..	6,402,	6,752,	7,879,	6,798,
	Provisions .....	2,131,	1,155,	1,330,	1,850,
		8,533,	7,907,	9,209,	8,648,
Remainder of Enumerated Articles .....		1,369,	1,138,	1,042,	1,508,
TOTAL ENUMERATED IMPORTS....		57,097,	45,156,	44,428,	53,126,
Add for UNENUMERATED IMPORTS (say)		14,274,	11,289,	11,107,	13,282,
TOTAL IMPORTS .....		71,371,	56,445,	55,535,	66,408,



EXPORTS. — (United Kingdom.) — First Six Months (*January — June*)  
 1860-59-8-7-6.—*Declared Real Value of Articles of BRITISH and IRISH Produce*  
*and Manufactures Exported from United Kingdom.*

(First Six Months.) BRITISH PRODUCE, &C., EXPORTED.		1860.	1859.	1858.	1857.	1856.
(Unit 000's omitted.)		£	£	£	£	£
MANFRS.— <i>Textile.</i>	Cotton Manufactures..	18,580,	18,942,	15,385,	15,373,	14,033,
	„ Yarn.....	4,660,	4,370,	4,478,	4,004,	3,644,
	Woollen Manufactures	5,501,	5,861,	4,148,	5,531,	4,642,
	„ Yarn.....	1,739,	1,133,	1,132,	1,323,	1,278,
	Silk Manufactures ...	950,	1,022,	768,	1,457,	1,120,
	„ Yarn.....	117,	97,	80,	183,	138,
	Linen Manufactures...	2,001,	2,257,	1,922,	2,390,	2,334,
	„ Yarn.....	913,	787,	761,	836,	613,
		34,461,	34,469,	28,674,	31,097,	27,802,
„	<i>Sewed.</i> Apparel .....	965,	1,013,	851,	948,	769,
	Haberd. and Millnry	1,856,	2,158,	1,557,	2,055,	1,713,
		2,821,	3,171,	2,408,	3,003,	2,482,
METALS .....	Hardware.....	1,657,	1,840,	1,502,	1,901,	1,703,
	Machinery .....	1,592,	1,487,	1,794,	1,680,	1,090,
	Iron .....	5,607,	6,331,	5,393,	7,114,	6,425,
	Copper and Brass.....	1,474,	1,197,	1,327,	1,355,	1,266,
	Lead and Tin .....	1,287,	1,355,	1,040,	1,361,	1,134,
	Coals and Culm .....	1,544,	1,600,	1,522,	1,486,	1,269,
		13,161,	13,810,	12,578,	14,897,	12,887,
<i>Ceramic Manufcts.</i>	Earthenware and Glass	979,	915,	830,	1,093,	921,
<i>Indigenous Mnfrs.</i>	Beer and Ale .....	1,252,	1,295,	1,093,	872,	839,
	Butter .....	264,	319,	221,	275,	302,
	Cheese .....	55,	58,	36,	59,	61,
	Candles .....	120,	75,	70,	151,	140,
	Salt .....	170,	116,	143,	190,	174,
	Spirits .....	145,	114,	97,	490,	372,
	Soda .....	487,	517,	347,	375,	272,
		2,493,	2,494,	2,007,	2,412,	2,160,
<i>Various Manufcts.</i>	Books, Printed.....	221,	215,	183,	206,	187,
	Furniture .....	103,	106,	130,	131,	81,
	Leather Manufactures	1,032,	898,	932,	1,133,	737,
	Soap .....	124,	92,	98,	131,	135,
	Plate and Watches ...	241,	235,	219,	255,	198,
	Stationery.....	373,	393,	360,	358,	323,
		2,094,	1,939,	1,922,	2,214,	1,661,
Remainder of Enumerated Articles .....		1,622,	1,546,	1,308,	1,630,	1,955,
Unenumerated Articles .....		4,389,	4,659,	3,741,	4,480,	4,100,
TOTAL EXPORTS .....		62,020,	63,003,	53,468,	60,826,	53,968,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Six Months (*Jan. —June*) 1860-59-8-7.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Six Months.)	1860.			1859.		1858.		1857.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
ENTERED :—									
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia .....	136	42,	307	129	38,	51	14,	42	9,
Sweden .....	379	60,	158	333	56,	300	48,	180	31,
Norway .....	874	176,	201	892	193,	791	156,	722	133,
Denmark .....	1,341	127,	94	1,111	108,	1,149	111,	1,208	113,
Prussia and Ger. Sts. ....	1,527	318,	208	1,417	314,	1,315	286,	1,628	282,
Holland and Belgium ....	771	106,	138	760	107,	562	86,	721	119,
France .....	946	81,	86	1,466	120,	1,405	117,	466	35,
Spain and Portugal .....	188	50,	264	169	41,	211	44,	171	36,
Italy & other Eupn. Sts.	287	88,	308	262	83,	299	88,	87	26,
United States .....	692	689,	995	506	514,	640	610,	583	589,
All other States .....	10	3,	265	7	2,	11	4,	14	5,
	7,151	1,740,	243	7,052	1,576,	6,734	1,564,	5,822	1,378,
United Kingdom. & } Depds.....	8,526	2,482,	291	8,505	2,287,	8,312	2,204,	7,556	2,147,
<i>Totals Entered</i>	15,677	4,222,	262	15,557	3,863,	15,046	3,768,	13,378	3,525,
CLEARED :—									
Russia .....	142	46,	325	155	48,	84	29,	60	16,
Sweden .....	425	75,	177	361	68,	337	68,	259	58,
Norway .....	762	152,	199	886	185,	573	117,	795	169,
Denmark .....	1,464	143,	98	1,248	125,	1,200	121,	1,382	141,
Prussia and Ger. Sts. ....	1,924	378,	196	2,070	408,	1,918	338,	1,974	335,
Holland and Belgium ....	908	151,	166	984	153,	985	168,	1,057	201,
France .....	1,764	191,	108	1,752	191,	2,140	224,	1,723	189,
Spain and Portugal .....	160	45,	281	167	39,	198	43,	182	39,
Italy & other Eupn. Sts.	360	113,	314	388	119,	486	148,	338	110,
United States .....	711	675,	949	490	478,	605	575,	641	637,
All other States .....	9	3,	308	11	4,	8	3,	9	3,
	8,629	1,972,	228	8,512	1,818,	8,534	1,834,	8,420	1,898,
United Kingdom. & } Depds.....	11,652	3,147,	270	12,110	3,142,	11,491	2,925,	12,269	3,073,
<i>Totals Cleared</i>	20,281	5,119,	252	20,622	4,960,	20,025	4,759,	20,689	4, 97

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(Unit Kingdom.) — *Computed Real Value for the First Six Months (Jan.—June) 1860-59-8.* (Unit 000's omitted.)

(First Six Months.)	1860.			1859.			1858.		
	Gold.	Silver.	TOTAL.	Gold.	Silver.	TOTAL.	Gold.	Silver.	TOTAL.
<b>Imported from:—</b>	£	£	£	£	£	£	£	£	£
Australia .....	3,286,	—	3,286,	3,973,	—	3,973,	4,372,	—	4,372,
So. Amca. and W. } Indies .....	598,	1,839,	2,437,	1,147,	1,395,	2,542,	2,383,	1,543,	3,926,
United States and } Cal. ....	1,653,	551,	2,204,	3,882,	411,	4,293,	2,826,	96,	2,922,
	5,537,	2,390,	7,927,	9,002,	1,806,	10,808,	9,581,	1,639,	11,220,
France .....	53,	1,762,	1,815,	814,	4,093,	4,907,	460,	1,250,	1,710,
Hanse Towns, Holl. } & Belg. ....	10,	860,	870,	338,	2,211,	2,549,	1,112,	385,	1,497,
Prtgl., Spain, and } Gbrltr. ....	11,	142,	153,	36,	97,	133,	166,	380,	546,
Mlta., Trky., and } Egypt .....	14,	7,	21,	229,	7,	306,	735,	10,	745,
China .....	—	—	—	—	—	—	35,	86,	121,
West Coast of Africa	55,	2,	57,	44,	2,	46,	58,	5,	63,
All other Countries....	125,	7,	132,	1,198,	11,	1,209,	241,	27,	268,
<b>Totals Imported</b>	5,805,	5,170,	10,975,	11,731,	8,227,	19,958,	12,388,	3,782,	16,170,
<b>Exported to:—</b>									
France .....	3,447,	200,	3,647,	8,301,	207,	8,508,	5,620,	207,	5,827,
Hanse Towns, Holl. } & Belg. ....	66,	176,	242,	682,	716,	1,398,	212,	846,	1,058,
Prtgl., Spain, and } Gbrltr. ....	276,	1,	277,	149,	—	149,	66,	—	66,
	3,789,	377,	4,166,	9,132,	923,	10,055,	5,898,	1,053,	6,951,
Ind. and China (viâ } Egypt) .....	760,	5,385,	6,145,	125,	8,832,	8,957,	57,	3,112,	3,169,
Danish West Indies...	5,	10,	15,	137,	6,	143,	10,	68,	78,
United States .....	1,	2,	3,	10,	3,	13,	135,	—	135,
South Africa .....	2,	—	2,	2,	5,	7,	65,	3,	68,
Mauritius.....	—	—	—	—	—	—	107,	26,	133,
Brazil .....	273,	74,	347,	64,	60,	124,	134,	57,	191,
All other Countries....	95,	28,	123,	43,	30,	73,	8,	8,	16,
<b>Totals Exported</b>	4,925,	5,876,	10,801,	9,513,	9,859,	19,372,	6,414,	4,327,	10,741,
<b>Excess of Imports ....</b>	880,	—	174,	2,218,	—	586,	5,974,	—	5,429,
„ <b>Exports ....</b>	—	706,	—	—	1,632,	—	—	545,	—



## REVENUE.—(UNITED KINGDOM.)—30TH JUNE, 1860-59-8-7.

*Net Produce in YEARS and QUARTERS ended 30TH JUNE, 1860-59-8-7.*

[Unit 000's omitted.]

QUARTERS, ended 30th June.	1860.	1859.	1860.		Corresponding Quarters.	
			Less.	More.	1858.	1857.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	5,733,	6,108,	376,	—	5,879,	6,149,
Excise .....	5,114,	4,945,	—	169,	4,626,	4,507,
Stamps .....	2,068,	1,960,	—	107,	2,084,	1,850,
Taxes .....	1,354,	1,349,	—	5,	1,326,	1,324,
Post Office .....	825,	785,	—	40,	765,	675,
	15,094,	15,147,	376,	321,	14,680,	14,505,
Property Tax .....	1,089,	782,	—	307,	1,199,	2,456,
	16,183,	15,929,	376,	628,	15,879,	16,961,
Crown Lands .....	66,	65,	—	1,	64,	64,
Miscellaneous .....	570,	498,	—	73,	336,	256,
<b>Totals .....</b>	<b>16,819,</b>	<b>16,492,</b>	<b>376,</b>	<b>702,</b>	<b>16,279,</b>	<b>17,281,</b>
			Net Increase £326,918			

YEARS, ended 30th June.	1860.	1859.	1860.		Corresponding Years.	
			Less.	More.	1858.	1857.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	24,085,	24,347,	262,	—	22,839,	23,606,
Excise .....	20,530,	18,221,	—	2,309,	17,944,	17,667,
Stamps .....	8,151,	7,882,	—	269,	7,649,	7,365,
Taxes .....	3,237,	3,185,	—	52,	3,154,	3,009,
Post Office .....	3,350,	3,220,	—	130,	3,010,	2,845,
	59,353,	56,855,	262,	2,760,	54,596,	54,492,
Property Tax .....	9,903,	6,266,	—	3,636,	10,330,	16,169,
	69,256,	63,121,	262,	6,396,	64,926,	70,661,
Crown Lands .....	286,	280,	—	6,	277,	284,
Miscellaneous .....	1,874,	2,288,	413,	—	1,676,	1,034,
<b>Totals .....</b>	<b>71,416,</b>	<b>65,689,</b>	<b>675,</b>	<b>6,402,</b>	<b>66,879,</b>	<b>71,979,</b>
			Net Increase £5,727,014			

REVENUE (UNITED KINGDOM).—QUARTER ENDED 30TH JUNE, 1860 :—  
APPLICATION.

*An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th June, 1860 ; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st March, 1860, viz.:—	£
Great Britain .....	£324,756
Ireland .....	1,023,892
	<u>1,348,648</u>
Income received in the Quarter ended 30th June, 1860, as shown on preceding page .....	16,819,174
Amount received in the Quarter ended 30th June, 1860, in repayment of Advances for Public Works, &c. ....	515,954
	<u>£18,683,776</u>
Balance, being the deficiency on 30th June, 1860, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 30th September, 1860, and for which Exchequer-bills (Deficiency) will be issued in that Quarter .....	1,589,726
	<u>£20,273,502</u>

Paid:—

Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 30th June, 1860 .....	£
	11,483,869
Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th June, 1860, viz.:—	
Interest of the Permanent Debt .....	£6,392,745
Terminable Debt .....	461,876
The Civil List .....	100,771
Other Charges on Consolidated Fund .....	560,387
Advances for Public Works, &c. ....	237,398
Sinking Fund .....	396,845
	<u>8,150,022</u>
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th June, 1860, viz.:—.....	639,611
	<u>£20,273,502</u>

**CORN.—Gazette Average Prices (ENGLAND AND WALES) Second Quarter of 1860.**

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday, 1860.		Weekly Average. (Per Impl. Quarter.)											
		Wheat.		Barley.		Oats.		Rye.		Beans.		Peas.	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
April	7	47	9	36	4	23	7	31	8	40	2	38	3
"	14	49	1	37	2	24	2	36	10	39	9	38	3
"	21	49	6	37	6	24	2	32	11	42	—	39	2
"	28	51	2	37	11	24	5	31	5	41	6	38	1
Average for April .....		49	4	37	2	24	1	33	2	40	10	33	9
May	5	52	6	37	5	25	5	34	—	42	4	39	9
"	12	52	6	37	7	25	10	34	1	43	8	40	3
"	19	52	1	36	6	25	3	36	2	44	3	39	5
"	26	52	6	36	2	26	6	37	3	44	8	40	9
Average for May .....		52	5	36	11	25	9	35	4	43	8	40	—
June	2	53	4	35	10	26	8	39	3	44	1	41	1
"	9	54	2	35	—	27	8	38	1	45	9	40	8
"	16	54	11	35	3	26	11	37	—	46	2	40	4
"	23	57	—	34	7	27	5	38	9	45	10	41	4
"	30	58	5	32	10	25	5	41	9	47	1	41	8
Average for June .....		55	6	34	8	26	9	38	11	45	9	41	—
Average for the Quarter ..		52	8	36	1	25	7	36	1	43	7	39	9

**RAILWAYS.—PRICES, April—June,—and TRAFFIC April—June, 1860.**

Railway.	For the (£100). Price on			Miles Open.		Total Traffic for 26 Weeks. unit 000's omitted.		Traffic pr. Mile pr. Wk. 26 Weeks.		Dividends per Cent. for Half Years.		
	1 Jn.	2 Ma.	2 Ap.	'60.	'59.	'60.	'59.	'60.	'59.	30 Dec. '59.	30 July '59.	30 Dec. '58.
				No.	No.	£	£	£	£	s. d.	s. d.	s. d.
Lond. & N. Westn.	101 $\frac{1}{4}$	100 $\frac{3}{4}$	98	917	891	1,996,	1,824,	84	78	52 6	42 6	42 6
Great Western ....	69 $\frac{1}{4}$	69 $\frac{3}{4}$	67 $\frac{1}{2}$	465	465	815,	762,	67	63	35 —	20 —	25 —
Great Northern ....	116	114 $\frac{1}{2}$	110 $\frac{1}{2}$	283	283	636,	582,	86	79	70 —	33 9	61 3
Eastern Counties.	54	55	55	499	489	646,	628,	49	49	30 9	19 13	30 1
Brighton & .....	115	114	109 $\frac{1}{2}$	223	202	382,	362,	66	69	70 —	50 —	70 —
South-Eastern ....	85 $\frac{1}{4}$	87 $\frac{3}{4}$	87 $\frac{1}{2}$	306	302	525,	491,	66	62	60 —	40 —	50 —
South-Western ....	93 $\frac{1}{2}$	92	92 $\frac{1}{4}$	337	337	439,	407,	50	46	52 6	42 6	57 6
	90 $\frac{1}{2}$	90 $\frac{1}{2}$	88 $\frac{1}{2}$	3,030	2,969	5,439,	5,056,	69	65	53 11	35 5	48 —
Midland .....	116 $\frac{3}{4}$	116 $\frac{3}{4}$	115 $\frac{1}{2}$	614	614	982,	877,	64	56	60 —	42 6	55 —
Lancsh. and York.	104 $\frac{3}{4}$	105 $\frac{3}{4}$	101 $\frac{1}{2}$	395	395	918,	820,	89	79	50 —	45 —	40 —
Sheffield and Man.	42	42 $\frac{1}{4}$	42	173	173	286,	263,	63	58	10 —	4 —	—
North-Eastern ....	96 $\frac{1}{4}$	96	92 $\frac{3}{4}$	764	764	933,	865,	47	44	41 8	30 10	37 1
South Wales .....	69	67	66	171	171	177,	165,	39	37	27 6	22 6	25 —
	85 $\frac{3}{4}$	85 $\frac{1}{2}$	83 $\frac{1}{2}$	2,117	2,117	3,296,	2,990,	60	54	37 10	28 11	39 3
Caledonian .....	90 $\frac{3}{4}$	91	89 $\frac{3}{4}$	198	198	367,	340,	71	66	50 —	37 6	40 —
Gt. S. & Wn. Irld.	114	114	115	329	229	206,	177,	24	29	50 —	50 —	50 —
<i>Gen. aver.</i> ....	90 $\frac{1}{2}$	90 $\frac{1}{4}$	88 $\frac{3}{4}$	5,674	5,513	9,308,	8,563,	63	60	47 2	34 3	44 10

Consols.—Money Prices 1st June, 93 $\frac{3}{8}$  to  $\frac{1}{2}$ ,—2nd May, 95 $\frac{1}{4}$  to  $\frac{3}{8}$ ,—2nd April, 93 $\frac{7}{8}$  to 94.

Exchequer Bills.                      „                      9s. pm.,                      „                      9s. pm.,                      „                      16s. pm.



## BANK OF FRANCE.—Abstract of Official Returns.—25 francs = £.

I.—LIABILITIES (*Passif*).

1	2	3	4	5	6	7	8	9	10	11	12	13
DATES.	Billets to Bearer. (Circulation.)			Billets to Order. (Bank Post Bills.)			Current Accounts. (Deposits.)			Other Liabili- ties.		Total
	Paris.	Branch.	Total.	Paris.	Réce- pissés.	Total.	Trea- sury.	Paris.	Branch.	Total.		
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1860.												
April 12	—	—	29·87	·29	·41	·70	6·70	7·07	1·32	15·09	8·87	54·5
May 10	—	—	30·58	·31	·46	·77	5·06	7·00	1·45	13·51	9·14	54·0
June 14	—	—	29·76	·29	·46	·75	5·05	8·39	1·57	15·01	9·10	54·6
July 12	—	—	31·50	·29	·45	·74	5·10	7·91	1·31	14·32	9·13	55·0

II.—ASSETS (*Actif*).

14	15	16	17	18	19	20	21	22	23	24	25
DATES.	Coin and Bullion.			Portfolio. (Discounts.)			Ad- vances on Ingots.	Advances on Public Stocks.	Advances on Shares.	Other Assets.	Total
	Paris.	Branch.	Total.	Paris.	Branch.	Total.	Total.	Total.	Total.		
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1860.											
April 12	7·12	14·29	21·41	9·32	9·85	19·17	·09	1·61	3·33	8·92	54·5
May 10	6·69	14·20	20·89	9·05	9·69	18·74	·11	1·58	3·78	8·90	54·0
June 14	6·93	15·13	22·06	8·01	9·50	17·51	·13	1·62	4·33	8·97	54·6
July 12	5·67	14·92	20·59	8·87	10·81	19·68	·20	1·61	4·88	8·73	55·0

## BANKS in BOSTON, NEW YORK, PHILADELPHIA and NEW ORLEANS, 1860.

Monthly Averages deduced from Weekly Official Returns. \$5 = £.

1860.	Boston.				New York.				Rates of Discount in New York on Prime endorsed, 60 d. Bills.  Pr. et. pr. ann.
Averages of Months of	Liabilities.		Assets.		Liabilities.		Assets.		
	Circl.	Deps.	Loans.	Specie.	Circl.	Deps.	Loans.	Specie.	
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	
March .....	1·27	3·72	12·01	1·07	1·67	21·23	25·43	4·59	6 @ 7
April .....	1·42	4·02	12·16	1·25	1·76	21·48	25·80	4·63	3½ „ 6
May .....	1·40	4·13	12·31	1·25	1·82	21·36	25·19	4·59	5 „ 6

1860.	Philadelphia.				New Orleans.			
March .....	·54	3·06	5·17	·97	2·76	3·90	4·82	2·55
April .....	·63	3·21	5·44	1·06	2·23	3·60	4·46	2·43
May .....	·58	3·27	5·50	1·06	2·45	3·51	4·04	2·34

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the SECOND QUARTER (April—June) of 1860.

12345					6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1860. Pr. ct. p. an.
28,68	April 4 ...	11,02	3,46	14,21	21,84	12 April, 5.
28,38	„ 11 ...	11,02	3,46	13,91	23,46	
28,36	„ 18 ...	11,02	3,46	13,89	21,81	10 May, 4½.
28,45	„ 25 ...	11,02	3,46	13,97	21,64	
28,59	May 2 ...	11,02	3,46	14,12	22,22	24 „ 4.
29,06	„ 9 ...	11,02	3,46	14,59	21,88	
29,23	„ 16 ...	11,02	3,46	14,75	21,61	
29,57	„ 23 ...	11,02	3,46	15,09	21,22	
29,62	„ 30 ...	11,02	3,46	15,14	21,45	
29,65	June 6 ...	11,02	3,46	15,18	21,26	
29,91	„ 13 ...	11,02	3,46	15,43	20,97	
30,15	„ 20 ...	11,02	3,46	15,67	20,83	
30,24	„ 27 ...	11,02	3,46	15,77	20,96	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18	
Liabilities.					Assets.						Totals of Liabili- ties and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.	DATES.  (Wdnsdys.)	Securities.		Reserve.			
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.		
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	
14,55	3,78	9,69	13,97	,70	April 4	10,22	24,96	6,84	,67	42,70	
14,55	3,20	5,88	14,57	,71	„ 11	9,73	23,53	4,92	,72	38,91	
14,55	3,21	5,84	15,51	,69	„ 18	9,73	22,79	6,55	,73	39,80	
14,55	3,22	6,25	14,60	,70	„ 25	9,73	22,07	6,81	,71	39,33	
14,55	3,22	6,87	13,43	,68	May 2	9,73	21,90	6,37	,76	38,76	
14,55	3,26	7,28	12,61	,72	„ 9	9,73	20,74	7,18	,78	38,43	
14,55	3,27	7,58	12,22	,76	„ 16	9,73	20,27	7,62	,77	38,39	
14,55	3,28	7,67	12,57	,69	„ 23	9,73	19,94	8,35	,75	38,76	
14,55	3,22	7,49	12,55	,67	„ 30	9,73	19,83	8,17	,75	38,48	
14,55	3,23	7,75	12,18	,68	June 6	9,76	19,46	8,39	,78	38,39	
14,55	3,23	8,43	12,41	,66	„ 13	9,76	19,82	8,94	,76	39,29	
14,55	3,24	8,68	12,11	,64	„ 20	9,76	19,32	9,32	,82	39,24	
14,55	3,25	9,32	12,35	,66	„ 27	9,81	19,26	9,28	,78	40,14	



## CIRCULATION.—COUNTRY BANKS.

*Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the SECOND QUARTER (April—June) of 1860; and in SCOTLAND and IRELAND, at the Four Dates, as under.*

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4'40.)	Joint Stock Banks. (Fixed Issues, 3'30.)	TOTAL. (Fixed Issues, 7'70.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2'75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6'35.)
1860.	Mlms. £	Mlms. £	Mlms. £	1860.	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £
April 7	3,57	3,14	6,71	April 7	1,44	2,44	3,88	3,45	3,64	7,09
„ 14	3,60	3,17	6,77							
„ 21	3,59	3,13	6,72							
„ 28	3,54	3,09	6,63							
May 5	3,53	3,08	6,61	May 5	1,50	2,50	4,00	3,56	3,45	7,01
„ 12	3,51	3,09	6,60							
„ 19	3,52	3,10	6,62							
„ 26	3,49	3,04	6,53							
June 2	3,47	3,00	6,47	June 2	1,76	2,81	4,57	3,56	3,27	6,83
„ 9	3,44	2,99	6,43							
„ 16	3,42	2,98	6,40							
„ 23	3,42	2,98	6,40							
„ 30	3,44	2,99	6,43	„ 30	1,58	2,68	4,26	3,40	3,11	6,51

FOREIGN EXCHANGES.—*Quotations as under, London on Paris, Hamburg & Calcutta—  
—and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.
	London on Paris.	Bullion as arbitrated.		Prem or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
3 m. d.				3 m. d.			60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.	pr. oz.	
1860.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Apl. 7 ..	25·42	0·2	—	par	13·6	par	—	109	26	25½	57	1 p.	61¾
„ 21 ..	·45	—	0·1	„	·6	„	—	„	„	„	„	„	61½
May 5 ..	·40	0·1	—	„	5¾	„	—	„	„	25	„	„	„
„ 19 ..	·40	0·2	—	„	5¾	„	—	109½	„	„	„	„	„
June 2 ..	·37½	„	—	„	5¾	„	—	„	„	„	„	„	„
„ 23 ..	·40	„	—	„	5¾	0·3	—	„	„	24½	„	„	„
July 7 ..	·40	„	—	„	5½	0·1	—	109¾	„	„	„	„	„



# GLOBE INSURANCE,

## FOR FIRE, LIFE, ANNUITIES, REVERSIONS,

Established 1803.

EMPOWERED BY SPECIAL ACTS OF PARLIAMENT.  
CORNHILL AND CHARING CROSS, LONDON.

### DIRECTORS.

*Chairman.*—WILLIAM CHAPMAN, ESQ.  
*Deputy-Chairman.*—SHEFFIELD NEAVE, ESQ.  
*Treasurer.*—GEORGE CARR GLYN, ESQ., M.P.

Boyce Combe, Esq. Thomas M. Coombs, Esq. William Dent, Esq. James W. Freshfield, Esq., F.R.S. John Bankes Friend, Esq.	Robert W. Gaussen, Esq. Rich. Lambert Jones, Esq. John Edw. Johnson, Esq. Nathaniel Montefiore, Esq. Fowler Newsam, Esq.	W. H. C. Plowden, Esq., F.R.S. W. Tite, Esq., M.P., F.R.S. R. Westmacott, Esq., F.R.S. Josiah Wilson, Esq. Benjamin G. Windus, Esq.
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### AUDITORS.

LIEUT.-COL. WM. ELSEY. | ALEX. MACKENZIE, ESQ.

### CAPITAL :

**ONE MILLION STERLING.**

The whole Paid-Up and Invested; thereby affording full Security to parties Assured.

### LIFE DEPARTMENT.

In order to combine the latest improvements in the practice of Life Insurance with those principles of Solidity and Security which have distinguished the GLOBE during its extensive experience of nearly Sixty Years,

#### New Tables of Life Premiums at Reduced Rates

are adopted, comprising a *Non-Participating Scale* for fixed Sums upon very moderate terms; and a *Participating Scale* at higher rates, but entitling to BONUSES of Two-Thirds of the Profits at the Quinquennial divisions.

The BONUS so declared may be applied in one of three modes—namely: By addition to the Policy; By reduction of future Premiums; or, By an equivalent payment in cash.

*The Directors desire to draw attention to the following examples of the Profits accruing on Globe Participating Life Policies under the BONUS declared as at 31st December, 1858.*

AGE at Date of Policy.	Original Sum Insured.	Original Annual Premium.	Complete Years in force.	BONUS at 31st December, 1858, applied—		
				By <i>Addition</i> to Policy.	By <i>Reducing</i> future Premiums to	By payment in CASH.
	£	£ s. d.		£	£ s. d.	£ s.
35	1,000	28 2 6	6	72	26 3 11	32 15
40	1,000	32 15 0	6	72	30 10 1	35 7
50	1,000	45 12 6	6	72	42 3 9	42 9

*NOTE.—Policies upon which from One to Five complete Years have elapsed, participate in proportion to the above Scale.*

The profits apportioned in the above cases are equivalent—if added to the Policy—to a Reversionary Sum at death equal to ONE POUND FOUR SHILLINGS PER CENT. PER ANNUM on the Sum Insured for each of the completed years elapsed since the date of the Policy. Or, if taken in the form of an IMMEDIATE CASH PAYMENT, that payment is equal, at most ages, to considerably more than ONE YEAR'S PREMIUM.

PROSPECTUSES, containing further information; with Tables of Premiums at other Ages, and for INSURANCES ON LIVES, according to various plans—and also the Rates of ANNUITY granted by the GLOBE INSURANCE—may be had at the Offices of the COMPANY; or of the Agents.

### FIRE DEPARTMENT.

Every description of FIRE INSURANCE is undertaken by the GLOBE.

(By Order of the Board)

WILLIAM NEWMARCH, *Secretary.*

REPORT OF THE DIRECTORS FOR THE YEAR ENDING  
JUNE 30, 1860.

THE Directors have again the pleasure to make their Annual Report to the Proprietors—the Fifty-third since the commencement of the Company's operations, and the Third since the last Quinquennial distribution of Surplus.

The Income and Outgoings of the year ending on the 30th June last, will appear in the following abstract from the Surplus Fund Account, as shown by the Company's Books:—

**SURPLUS FUND ACCOUNT.**

INCOME OF THE YEAR ENDING 30TH JUNE, 1860.				CHARGE OF THE YEAR.			
	£	s.	d.		£	s.	d.
Balance of Account, June 30, 1859	659,013	17	2	Dividend to Proprietors...	...	...	10,343 8 6
Ditto, a small Assurance Company...	30,264	0	10	Claims on decease of Lives assured	238,552	12	7
				Additions to those under Participating Policies	21,167	18	6
Premiums on New Assurances	19,588	17	6	Policies surrendered	9,733	7	2
Ditto on Renewed ditto	283,250	19	11	Reassurances, New	1,833	6	5
				Ditto, Old	30,124	6	3
	302,839	17	5		301,416	10	11
Interest from Investments	81,203	1	11	Commission	10,722	14	1
				Medical Fees	1,071	16	8
	384,042	19	4	Income Tax	3,603	3	1
				Expenses of Management	11,044	4	10
					327,858	9	2
				Balance of Account, June 30, 1860	744,118	19	8
	£1,082,320	17	4		£1,082,320	17	4

Examined and found to be correct,

(Signed)

THOMAS ALLEN,

WILLIAM HENRY SMITH, Jun.,

*Auditors.*

The Proprietors will observe that another small Assurance Company, has merged into the Eagle during the year, and that it has contributed about £39,000 to the Surplus Fund.

The Premiums on new Assurances amount to £19,588 17s. 6d., and the total Income from Premiums and Interest to £384,042 19s. 4d. This is short about £6,000 of the actual Income, in consequence of the junction above-mentioned not taking place at the commencement of the financial year.

Deducting the sums immediately payable, the realized Assets of the Company on the 30th June, 1859, were, in round numbers, £1,789,900; and, since the interest received during the year amounts, as above shown, to £81,203 1s. 11d., it follows that the Company's funds of that date, productive and unproductive, have been accumulating in the interval at rather more than the average rate of 4½ per cent.

The claims on decease of Lives Assured and the general expenses are, as it is reasonable to expect they would be, somewhat more than they were the previous year. It will be observed that the total expenses, including commissions, but excluding income tax, are not quite 6 per cent. of the income.

The Company's Liabilities and Assets on the 30th June last, stated with as much accuracy as they can be in the absence of a re-valuation, will be seen in the following Balance Sheet:—

## BALANCE SHEET.

LIABILITIES.		£	s.	d.	ASSETS.		£	s.	d.
Interest due to Proprietors not claimed		6,555	12	9	Amount invested in Fixed Mortgages	1,195,492	16	8	
Claims on Decease of Lives Assured					Ditto, ditto, Decreasing Mortgages	154,783	10	8	
and additions thereto unpaid	...	88,494	2	4	Ditto, ditto, Reversions	77,846	1	11	
Cash bonus due to Policyholders	...	12,511	10	4	Ditto, ditto, Funded Securities	257,708	2	1	
Sundry Accounts	...	12,541	7	10	Ditto, ditto, Temporary Securities	61,402	14	10	
Value (1857) of Sums Assured, Annu-					Current Interest on the above Invest-				
ities, &c.	...	4,387,426	2	11	ments	26,636	3	11	
Proprietors' Fund	£203,743 10 3				Cash and Bills	33,973	17	3	
Surplus Fund, as above	744,118 10 8				Advanced on Security of the Company's				
		947,862	9	11	Policies, &c.	80,784	7	11	
					Agents' Balances	26,965	14	1	
					Sundry Accounts	12,723	2	6	
					Value (1857) of Assurance Premiums	3,518,873	15	1	
		£5,455,091	6	1					
						£5,455,091	6	1	

Examined and found to be correct.

(Signed)

THOMAS ALLEN,

WILLIAM HENRY SMITH, Jun.

*Auditors.*

From this it appears that the realized Assets amount to £1,937,317 11s., and that those to be realized are estimated at £3,518,973 15s. 1d. (about 11½ years' purchase), the two together being not far from Five Millions and a Half in amount.

The Surplus Fund has increased during the year from £659,013 17s. 2d. to £744,118 19s. 8d., the increase being £85,105 2s. 6d.

The Proprietors will thus observe that the Income of the Company still exceeds the Outgoings,



# QUARTERLY JOURNAL

OF THE

## STATISTICAL SOCIETY.

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DECEMBER, 1860.

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ABSTRACTS and INFERENCES *founded upon the OFFICIAL CRIMINAL RETURNS of ENGLAND and WALES for the Years 1854-9, with SPECIAL REFERENCE to the results of REFORMATORIES.* By T. BARWICK LLOYD BAKER, ESQ., *Hardwicke Court, near Gloucester.*

[Read before the Statistical Society, 20th November, 1860.]

I CAN only hope that my publishing the accompanying tables as a help to County Magistrates, may not be considered as an impertinence. They pretend to no originality; they are mere copies from some of Mr. Redgrave's "Judicial Statistics," which they by no means attempt to supersede, and they are addressed to County Magistrates, the average of whom are quite as able as myself to understand and appreciate, and comment upon the original. But to go even moderately into Mr. Redgrave's returns, requires a good deal of time and thought; and, therefore, if there be certain portions more peculiarly worth the study of county magistrates, it may be worth while to have these presented in such a form that a moment's reference may show how each county stands in certain points as compared with others.

It appears to me that there are such points demanding peculiar attention from all County Magistrates, and therefore, requiring to be published in such a form as may make a reference to them as easy as possible. Now a clever man of studious habits, who can work at a large blue book till he knows exactly where to turn for the table he wants, is apt to believe all the rest of the world as clever and studious as himself. But I know full well that there are many who, if less dull than myself, are usually as fully occupied, and these might be glad of a small book which would enable them to compare their own counties with others.



I believe that a moderate study of statistics would be of the utmost value to County Magistrates, and also that there are few classes of men who could give such valuable assistance to the Statist of Crime. Mr. Redgrave—the loss of whose services in this department will be greatly regretted by all who have read his books or known himself—once said to me “The figures in which I deal are most valuable if taken at their proper worth; but they are never the whole of truth; they are only the dry bones which make indeed the frame work, but require to have the muscle and skin added to give a correct outline.”

Now the occasion which led to this observation I shall advert to in its place, but I am inclined to believe that there are no class of men who could so well supply that “muscle” as the County Magistrates, if their attention were given to it.

The first column of the Table (F) in the Appendix, contains simply an *alphabetical* list of the counties.

Column B gives the acreage taken from the Census of 1851, which together with Column I, shows the density of population, an item of some value in Criminal Statistics, and of very great variation, Cheshire having about 1·73 acres to a man; Durham, 1·59; Stafford, 1·19; Warwick, 1·80; Worcester, 1·70; and West York, 1·39; while East and North York have 4·48 acres to a man; Cumberland, 5·12; Northumberland, 4·11; Hereford, 4·63; Lincoln, 4·36; Rutland, 4·18; and Westmoreland, 8·29.

This calculation indeed will not be perfectly correct, as the population is taken from the police districts, and the acreage from the geographical county, but it will be near enough for ordinary purposes.

The next six columns or Group C (cols. 3—8) give the number of *Indictable Offences* tried in each county from the six years 1854-9 inclusive. It was in talking over these figures that Mr. Redgrave made the observation before alluded to, and these figures taken simply, would certainly give a wrong impression, and require a large amount of knowledge of *facts* to enable any one to judge of them rightly. On the one hand, account must be taken of Lord Palmerston's Criminal Justice Bill, which transferred a large number of offences from the quarter to the petty sessions in 1854, and therefore would apparently reduce the number recorded. On the other hand, we must remember that many cases which would be thought too slight to be sent to quarter sessions, entailing thereby the absence of prosecutors and of witnesses from home and business for several days, would be brought before a petty sessions, where the absence from home would be but of few hours duration.

To this must be added, what I believe most magistrates of twenty

or thirty years' experience will bear me out in stating, the inclination of the present generation to prosecute offences of so slight a nature as, thirty years since, would have been held too trifling to bring before a jury. Do not suppose that I regret or would discountenance this practice. On the contrary, I believe that many a man is thus checked in the commencement of crime, and others prevented from commencing: but in forming any judgment on the present amount of crime, as compared with the past, this fact, if, as I believe, it be one, must be taken into consideration.

The four next columns (Group D, cols. 9—12), giving the *numbers of Commitments of any kind to prison*, gives a far more reliable table, and it is satisfactory to see that the numbers have sunk in four years from 113,736 in 1856, to 107,172 in 1859. This favourable balance is enhanced by the fact that during these four years police have been established in most counties of England. Now the natural tendency of the first establishment of a police force is to decrease crime, but to do it by *increasing detection* and therefore increasing convictions in proportion to the crimes committed. If therefore the commitments to prison be decreased, we may well hope that the actual crimes are reduced in a far greater degree.

The next, Group E, gives the daily average in gaols. This, taken in conjunction with D, gives a fair idea of the average length of imprisonment in each year.

The two next groups of columns (F and G, cols. 17—20, and cols. 21—24), brings us to the number of *Boys and Girls under 16 years of age*, committed in the four years 1856-9, and the *diminution* from 10,634 to 6,704 *boys*, and from 2,108 to 1,185 *girls*, strikes us very forcibly.

To what circumstances this extraordinary decrease may be attributed, must be a matter of opinion. But here again I believe that the decrease of *commitments*, great as it is, falls far short of the decrease in the number of *crimes*. I make no remarks here on the cases of *girls*, as I have no experience in the treatment of them, and I am inclined to believe that they must be dealt with on totally different principles. Their crimes depend far less on gangs or on the corruption or instruction of others, than on their own individual propensities. They must, therefore, be treated individually.

But as to *boys*, so far as I can ascertain from the magistrates and police of different counties and towns, the race of six or ten times convicted boys,—the regular, habitual, skilful thieves, have nearly ceased to exist—excepting in London. Nearly every boy on a second if not a first conviction, is sent to a reformatory, and even if he be not reformed, even if he leave the reformatory with no sounder principle of honesty than that with which he entered it, at the very least he cannot be practising stealing and corrupting others while he is



digging on the farm. When he returns after some years to his home, his gang of old companions is dispersed (for a generation of boy thieves is soon past), and he at the very least must return with stiffened fingers and honest *habits*, even if with unimproved will. Facts happily bear us out in stating that a very large proportion of those who have come to us with the worst habits, do afterwards make useful and honest members of society: but I speak not of the effects we may hope for, but of those which are self-evident.

But if this be true, if a thief can scarcely complete his apprenticeship without his course being arrested, if the attainment of really skilful thieving, and the shelter of gangs of confederates be thus prevented, I think it necessarily follows that the number of crimes is far more decreased than that of convictions. When a clever practised thief, well-backed and assisted by a set of skilful confederates, will steal fifty articles without detection, a young hand with none to help or teach him, will be caught at his fifth essay, even without reckoning for the vigilance of the police, so greatly increased since 1856. If so, a reduction in convictions of about 36 per cent. would represent a reduction of crime to a far greater amount.

But some say, this diminution is not owing to Reformatories, but to a variety of other circumstances; abundance of employment, cheapness of food, increased vigilance of police, and lessening of payment to prosecutors and witnesses, have all tended to a reduction more temporary than real. To this I can only answer that these causes would have influenced Adult at least as much as Juvenile Crime. Yet the *Juvenile Crime* has fallen *steadily* from 13,981 in 1856, to 8,913 in 1859, being a reduction of 5,068, or 36 *per cent.*, while the *Adult Crime* has fallen *unsteadily* from 99,755 to 98,159, or 1½ per cent. only.\* The last reason, too, which is most strongly urged by many, can have but little weight in the cases of juveniles, all of whom may be, and nearly three-fourths of whom are, tried summarily.

The spread of Instruction, too, especially by Ragged Schools, thus giving some humanizing education to the very lowest, is alleged as a cause of the diminution. Highly, however, as I value these schools, I am not inclined to think that they have much hand in the diminution of juvenile crime. I know not what the experience of others may be, but I would earnestly call the attention of those who have an opportunity of examining into the subject, to see whether *three-fourths* or more of the twice or oftener convicted boys are not the children of parents *far above* that class whom a Ragged School could with justice receive.

* Total committals, 1856 .....	113,736	Total committals, 1859 .....	107,072
Deduct boys and girls .....	13,981	Deduct boys and girls .....	8,913
Adults committed .....	99,755	Adults committed .....	98,159



I certainly have found this to be the case almost universally in Gloucestershire, less so in Bristol, generally in the boys I have received from Birmingham and Liverpool, and I am inclined to believe that I shall find it far more than I had expected in London. Of this I shall probably, ere long, be better able to judge. But at any rate the spread of education has proceeded slowly and steadily for ten years or more, while the sudden diminution of juvenile crime is exactly coeval with the rise of reformatories. Nay, we even find that in two towns so similarly situated as Liverpool and Manchester (save that Manchester possessed a reformatory twelve months *later* than Liverpool), the number of boys convicted in Liverpool in the four years 1856-9, were 708, 502, 387, 404; while in Manchester, they ran 751, 827, 622, 401; each showing a diminution just at the time reformatory action commenced.

However, this is a question influenced by so many causes, that I can only suggest my own opinion, and then leave it open to after discussion.

The next group (H, cols. 26—31), is principally taken from the returns in the Report of the Rev. Sydney Turner for 1859. He has given us the *Numbers of Boys sent to Reformatories* in each of the four years, 1856-9, from each county. At first sight his tables do not appear to show so clear a connection with the reduction of crime as might have been expected. To try it more closely, I have altered the position of some columns and added one or two calculated from them, and I think I am justified in drawing from them a rather curious result.

I have always believed that the real use and value of a Reformatory was not the receiving every boy who happened to yield to some slight temptation, and the keeping him there for *his* benefit at the country's cost; but the receiving just the leaders of crime, with a view not so much to benefit *them*, as to prevent their leading others astray. The magistrates of some counties have taken the same view as myself, and have, as it appears, carefully sought out the worst boys and have sent *those only* to reformatories. In other counties they have taken the plan of receiving any boy who it was thought might be benefitted by this training, and of course have sent a far larger proportion.

Now I have taken the Committals of 1856 (col. 26), as giving a fair guess at the amount of crime *before* reformation began to work. Col. 27 gives the number of *Boys* who have been sent to any reformatory, no matter where, from each county during the four years.

The next (col. 28), gives the proportion which the number of *Juveniles* sent away in the four years bears to the total number of Committals in 1856.

The next (col. 29), gives the convictions of Boys in 1859. Col. 30 the reduction effected in the four years; and col. 31 the

proportion which the reduction bears to the total convictions of Boys in 1856.

Now we must remember that statistics will seldom afford a true deduction when applied to very small numbers. We find, for instance, that the crime of very small counties varies in a way which sets calculation at defiance, while that of a larger number is less the sport of accident.

If then we divide the Counties into groups, placing first those whose numbers sent to Reformatories in the four years are *above* 50 *per cent.* of the total committals of 1856, we have the following Table (A).

(A).—*Four Years, 1856-9.—Sentences to Reformatories.—Counties sending ABOVE 50 PER CENT. of the Total Committals of 1856.*

1 COUNTIES.	2 Committed in 1856.	3 Percentage sent to Reformatories.	4 Reduction of Crime.
Wilts .....	37	86·4	18·9
Worcester .....	80	77·5	7·5
*Warwick .....	366	63·6	45·6
Beds .....	46	60·8	39·1
*Norfolk .....	187	57·2	37·9
*Northumberland .....	220	56·6	31·8
Berks .....	68	55·8	33·8
<i>Average</i> .....	—	—	30·4

\* The average of (col. 4) the three cases of Warwick, Norfolk, and Northumberland, is 38·1 *per cent.* decrease.

If we take the second group of Counties as those in which the Boys sent to Reformatories number from 40 to 50 *per cent.* of the committals of 1856, we have thus in Table (B):—

(B).—*Four Years, 1856-9.—Sentences to Reformatories.—Counties sending ONLY between 40 and 50 PER CENT. of the Total Committals of 1856.*

1 COUNTIES.	2 Committed in 1856.	3 Percentage sent to Reformatories.	4 Reduction of Crime.
Cumberland .....	44	43·1	47·7
*York .....	796	43·	44·3
*Gloucester .....	382	42·6	32·1
Dorset .....	54	42·5	59·2
Westmoreland .....	12	41·6	33·3
<i>Average</i> .....	—	—	43·1

\* The average of the two cases of York and Gloucester, is 38·2 *per cent.* decrease.

The Counties who have sent between 30 and 40 per cent. are as in (C):—

(C.)—*Four Years, 1856-9.—Sentences to Reformatories.—Counties sending ONLY between 30 and 40 PER CENT. of the Total Committals of 1856.*

1	2	3	4
COUNTIES.	Committed in 1856.	Percentage sent to Reformatories.	Reduction of Crime.
Lancashire .....	1,737	39·9	40·8
Suffolk .....	123	35·7	39·8
Cheshire .....	242	35·1	51·6
<i>Average</i> .....	—	—	44·0

The Counties who have sent between 20 and 30 per cent. are as in (D):—

(D.)—*Four Years, 1856-9.—Sentences to Reformatories.—Counties sending ONLY between 20 and 30 PER CENT. of the Total Committals of 1856.*

1	2	3	4
COUNTIES.	Committed in 1856.	Percentage sent to Reformatories.	Reduction of Crime.
*Somerset .....	171	26·3	22·1
South Wales .....	125	25·6	19·
Derby .....	79	25·3	50·6
*Devon .....	202	25·2	21·2
*Sussex .....	150	24·	28·6
*Stafford .....	209	22·4	14·8
*Hants.....	239	21·3	35·5
Oxon .....	44	20·4	47·7
*Notts .....	119	20·1	26·
*Essex .....	175	20·	50·8
<i>Average</i> .....	—	—	31·6

*Note.*—The average of the seven cases marked (\*), is 28·3 per cent. decrease.

The Counties who have sent under 20 per cent. are as in (E):—



(E.)—*Four Years, 1856-9.—Sentences to Reformatories.—Counties sending UNDER 20 PER CENT. of the Total Committals of 1856.*

1 COUNTIES.	2 Committed in 1856.	3 Percentage sent to Reformatories.	4 Reduction of Crime.
Salop .....	67	19·3	31·3
Herts.....	94	18·	47·8
Northampton.....	79	17·9	15·
Cambridge.....	52	17·3	11·5
Monmouth .....	42	16·6	50·
*Kent .....	285	14·3	17·1
*Middlesex .....	3,606	11·8	36·7
North Wales .....	27	11·1	66·6
Bucks.....	46	10·8	8·6
*Surrey .....	1,317	7·2	46·7
<i>Average</i> .....	—	—	32·7

*Note.*—The average of the three cases marked (\*), is 33·4 *per cent. decrease.*

If this be correct and trustworthy, it would appear that the Counties in the *first group* have sent very large proportionate numbers, yet only reduced their crime by 30·4 per cent. The *second group*, who have sent fewer, have reduced it by 43 per cent. The *third group* by 44 per cent. The *fourth* by 31·6 per cent., and the *fifth* by 32·7 per cent. But if all the *smaller* counties are thrown out, *i.e.*, those which in 1856 had less than 100 convictions, the results will be a *Decrease of Committals* in 1859 as compared with 1856 as follows, *viz.*:—

Group 1.	Average 38·1 per cent. decrease.
„ 2.	„ 38·2 „
„ 3.	„ 44· „
„ 4.	„ 28·3 „
„ 5.	„ 33·4 „

Appearing to show in a nearly regular proportion that somewhere about the *third group* is the happy medium. If this be true, it is of the more consequence that it should be noticed, as the expense of sending boys to Reformatories, unless it produce an adequate result is objectionable.\*

\* There are besides these, some counties that we may, I think, fairly treat as exceptional cases, hardly coming within any rule.

Durham, for instance, has sent to reformatories a larger proportion of its crime (of 1856) than any other county; yet its crime in 1859 is higher than in 1856. But this is hardly to be wondered at in a county which has in ten years nearly doubled its population, by attracting to its wonderfully increasing mines the least steady hands from other counties. However, Durham shows a steady decrease for the last three years from 213 in 1857 to 137 in 1859.

Leicester, Lincoln, and Hereford too, have increased. The amount of crime is small in each, and very fluctuating.

I dare not, however, pretend to draw a certain conclusion from these premises; I only wish to call attention to the subject, and let the future show whether it be well grounded or no.

The remaining columns of the tables have reference to the police and their returns. Col. I gives the population of their districts; K gives the number of constables, their gross cost, and cost per man (cols. 33, 34, 35); L their return of known thieves; M a table calculated from the last, showing the proportion of known thieves in each county, and N the number of prostitutes.

These columns may all be useful for reference, but it is to L and M that I particularly wish to draw the attention of both magistrates and police.

I believe that the attempts made by Mr. Redgrave to number and classify all the *Habitual Criminals* throughout England, will be, when thoroughly carried out, one of the strongest preventatives to crime that we can possibly have. As burglars are more likely to be *stopped* by a light which they see than by a blunderbuss which they do not, so depend upon it, thieves will be more *stopped* by finding themselves and their proceedings known and registered, than by any dread or reality of a three months' imprisonment.

Now I must say, that in dealing with crime I have one principal desire,—I care not to punish, I care less to revenge, neither do I care for “upholding the majesty of the law,” for if the law be good it will uphold its own majesty; and if it be not good, I do not care to uphold it—but I do care *to stop crime*, to stop the old criminal from continuing it—far more to stop others from commencing.

Now I have found in a pretty long experience with two classes, viz., poachers and juvenile thieves, that no threat of punishment, and no punishment itself, excepting for the exact time (all too brief) while they are in durance, will have anything like the deterrent effect of a simple knowledge that they and their doings are known and systematically registered. It is, too, of the utmost importance that when we have to do battle with an enemy, we should, as early as may be in the campaign, acquire some definite notion as to the force we are to cope with. An absurd panic is as likely to be caused by a *fancy* that the enemy may be ten times his real strength, as a defeat may be by under estimating his power.

Attention has long been given to this subject, and it is curious

Rutland, Huntingdon, and Cornwall, are too small to allow us to draw conclusions from them.

Perhaps the least explicable variations are those of Middlesex and Surrey. The former has sent to reformatories only 11·8, and the latter 7·2 per cent. on the crime of 1856, yet the former has decreased its crime by 36·7, and the latter by 46·7 per cent. Whether this will be held to counterbalance the evidence of the other counties I know not, I can only rejoice at its decrease.



to see with what results. In 1796, Mr. Colquhoun, who was considered the best authority of his day, estimates the number of persons living wholly or partially by crime in the metropolis (London being then far smaller than now) at 115,000. In 1857, only three years ago, Mr. Thompson, of Banchory, a writer highly esteemed for his research, and considered to be moderate in his calculations, at p. 152, estimates "the number of criminals in London at 28,000;" adding, "It is stated that 16,000 criminals are known to the police to be at all times engaged in their evil pursuits in London. A large number are unknown to them." At p. 154 he gives his reasons for supposing that "the number of actual criminals in England and Scotland is about 105,000; this represents the number which we at present allow to support themselves at the public cost either in prison or out of it."

Now here is a great difference between Mr. Colquhoun and Mr. Thompson, while the population of London has so vastly increased, crime appears to have diminished; yet Mr. Thompson, with far greater advantages of police, is more likely to be correct than Mr. Colquhoun. But two years later comes Mr. Redgrave, with very far better means of forming an estimate than either, and what estimate does he give? Why, that Middlesex, instead of 115,000 or 28,000, possesses within the Metropolitan Police District (*i.e.* including the most populous parts of Surrey, Essex, and Kent), 3,121 thieves. The number of actual criminals throughout England which Mr. Thompson put at 100,994, is found to be 40,030.

Here is indeed a cheering reduction, but I believe that a closer examination would reduce it still more.

What is meant by "known thieves and depredators," is not, so far as I know, *anywhere defined*. Nor do the police in the different parts of England attach the same meaning to the term. In Yorkshire, and generally throughout the North of England, they profess to return no one as a known thief "who is ever known to do any honest work." In the south, with the exception of large towns, every man is entered as a "known thief, who has ever been known to steal." The difference of course is enormous, and explains the extraordinary variation found in the succeeding column which gives the number of persons in each county in proportion to each thief.

When we find that Berks, Bucks, Nottinghamshire, and Leicester return more than one known thief for every 200 of the population, while Derbyshire, East and North York, return only 1 to 800, and West York 1 to 1,235; when we find Birmingham return 1 to 134, Bristol 1 to 712, Manchester and Salford 1 to 498, Liverpool 1 to 1,155, we cannot but feel that only a different estimate of the term "known thief" can account for such discrepancies.

But if we look still farther, and find that Birmingham with only



134 honest men to 1 thief, has 246 population for each committal; while Liverpool with only 1 thief in every 1,155, has one committal for every 55 persons; we may feel sure that valuable as the attempt is, it has not yet attained a true result.

Yet I know that in my own county, and I believe throughout England, there can hardly exist one habitual thief in 100 whose habits, as well as habitat, are not pretty well known to the police. Indeed, of all the men and boys I have known who usually earned one quarter of their subsistence by theft, I have rarely found their liberty between imprisonments average above six months, a proof that they are pretty well known: (receivers, indeed, will often go on for many years without being caught, but I am speaking now of the thieves apart from the receivers). Whence then, if police are thus skilful and honest, arises such a discrepancy? Solely, I believe, from the different interpretations assigned to the general term "known thief." In Yorkshire, I am informed, no man is thus returned who is ever known to do honest work, and thus out of a population of 1,174,000, the known thieves are 951. In Gloucestershire, with equally perfect knowledge of the individual thieves, they returned every man as a thief whom they knew had ever stolen anything; and out of a population of under 400,000, returned 777 known thieves. Had they adopted the Yorkshire definition, they certainly would not have found 77 in the county.

I would then earnestly call on magistrates and police, as well as on those who collect the statistics, to try whether some expedient may not be found for obtaining this information more correctly. I believe it to be the very knowledge upon which must be based all systematic endeavours for the repression of crime. How then can it be obtained?

It appears to me that it would not be very difficult to make a certain gradation of fictitious cases, in such a way that every superintendent of police may know nearly, if not exactly, whereabouts in the scale each case may be placed. I have added a rough sketch of such a table (Table G.), not with a view to its exact adoption, but simply to throw out an idea upon which the police of various counties may improve. A line may then be drawn by the Statist of the Home Office, I care not whether between *a* and *b* or between *i* and *k* which will be similarly intelligible over all England, and it would tell the Statist, the Magistrate, and the Legislator, what was the real amount of crime of a certain standing in each locality, and in such a way as to enable them to make provision for reducing the numbers at large. Even if two divisions could be drawn and called *Dishonest* and *Thieves*, it would make the matter far more clear. For example, *d*, *e*, *f*, *g*, *h*, in the supposed scale might be classed as *dishonest*, that is, frequently yielding to temptation, but not deriving any

material part of their income from dishonest sources; while the divisions *i*, *k*, *l*, are returned as *known thieves*;—or, according to the views of the police in some parts of England, even *l* would be only set down as dishonest, because he only derives half his income from stealing; and the term “known thief” would apply only to such as live *solely* by thieving. But no matter where the line is drawn, if it be only drawn *alike* in all places, and if the Statist and Legislator know really somewhere about what idea to attach to the numbers given.

If we have to wage war against an enemy, a copy of his muster-roll is invaluable, but if we have only the number of persons given, and do not know whether these are all trained, organized soldiers, or whether nine-tenths of them are mere camp followers, our information will be of little avail. But if Magistrate, Statist, and Legislator can join first to procure accurate information and then act upon it, I feel no doubt that the whole crime of England will be found to be far lower than has ever been supposed; and that we have, with no new expense, and next to no new laws, the means of reducing it to a degree far lower than has yet been contemplated.

#### INDEX TO CONTENTS OF THE FOLLOWING TABLE (F).

I.			IV.		
	Col.			Col.	
A	1	Names of <i>counties</i> in alphabetical order.	G	22—25	<i>Girls</i> committed to prisons (“Jud. Stat.,” table 2 of Prisons).
B	2	Imperial <i>acreage</i> , from the Census, 1851 (p. 169 of “Summary Tables”).	H	26—31	Rev. S. Turner’s table, ( <i>vide</i> his “Report,” 1859, p. 72).
II.			V.		
C	3—8	Total <i>prisoners</i> of all ages committed or bailed for trial (“Judicial “Statistics,” 1856, p. 73; 1857, p. 82; 1858, p. 102; 1859, p. 53).	I	32	Population of <i>police district</i> (“Jud. Stat.,” table 1 of Police).
D	9—12	Total <i>offenders</i> sentenced to gaols by courts and magistrates (“Jud. Stat.,” table 2 of Prisons).	K	33—35	Numbers and <i>cost of police</i> (“Jud. Stat.,” table 1 of Prisons).
III.			VI.		
E	13—16	Daily average of <i>sentenced prisoners</i> in gaols (“Jud. Stat.,” table 5 of Prisons).	L	36, 37	“Known thieves” (Jud. Stat., table 2 of Police).
F	17—20	<i>Boys</i> committed to prisons (“Jud. Stat.,” table 2 of Prisons).	M	38	Population (1851) to one “known thief” in 1859, <i>calculated</i> .
	21	Names of counties repeated.	N	39, 40	Prostitutes, 1858-9 (“Jud. Stat.,” table 2 of Police).

*Counties of England and Wales—Summary of the following Table (F.)—Abstract of Criminal Returns, 1854-9.*

ENGLAND.

Years.	C. Total Prisoners of all Ages Committed or Bailed for Trial.	D. Total Offenders Sentenced to Gaols by Courts and Magis- trates.	E. <i>Daily Average of</i> Sentenced Prisoners in Gaols.	F. <i>Boys</i> Com- mitted to Prisons.	G. <i>Girls</i> Com- mitted to Prisons.	H. Total <i>Boys</i> sent to <i>Reforma- tories,</i> 1856-9.	K. Police : Number of Men.	L. “Known Thieves.”	N. Pros- titutes.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
1854.....	28,494	not given	not given	not givn.	not givn.	—	not givn.	not givn.	not givn.
'55.....	24,985	—	—	—	—	—	—	—	—
'56.....	18,784	110,906	17,279	11,652	2,198	1,286 total of the <i>four</i> years	—	—	—
'57.....	19,530	121,394	18,568	10,626	1,567		—	—	—
'58.....	17,141	114,706	18,217	8,686	1,399		19,976	37,713	27,564
'59.....	15,924	103,733	16,465	7,454	1,260		—	37,115	29,530
<i>Average</i>	20,810	112,685	17,632	9,604	1,606	—	—	—	—

WALES.

	No.	No.	No.	No.	No.	No.	No.	No.	No.
	No.	not given	not given	not givn.	not givn.	not given	not givn.	not givn.	not givn.
1854.....	865	not given	not given	not givn.	not givn.	not given	not givn.	not givn.	not givn.
'55.....	987	—	—	—	—	—	—	—	—
'56.....	653	2,830	490	156	110	35 total of the <i>four</i> years	—	—	—
'57.....	739	3,429	549	196	102		—	—	—
'58.....	714	3,458	538	151	93		621	2,319	1,196
'59.....	750	3,439	537	128	70		—	2,423	1,250
<i>Average</i>	784	3,289	529	158	94	—	—	—	—



(F.)—*Counties of England and Wales.*—

1	2	3	4	5	6	7	8	9	10
A.	B.	C.						I.	
Counties of England and Wales. (I.)	Imperial Acreage.	Total Prisoners of all ages Committed or Bailed FOR TRIAL.						Total Offenders by Court.	
		1854.	'55.	'56.	'57.	'58.	'59.	1856.	'57.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Beds .....	295,582	211	224	138	115	80	92	583	533
Berks .....	451,040	363	293	189	193	185	135	797	919
Bucks .....	466,932	273	280	196	153	152	100	632	671
Cambridge ....	523,861	279	225	136	174	129	117	698	759
Chester .....	787,078	1,092	882	870	904	615	578	2,867	2,811
Cornwall .....	873,600	269	252	163	200	167	172	575	678
Cumberland....	1,001,273	152	122	87	95	82	66	433	369
Derby .....	658,803	286	317	268	235	201	189	1,012	1,083
Devon .....	1,657,180	838	667	532	546	481	417	2,451	2,319
Dorset .....	632,025	368	259	171	144	137	121	632	626
Durham .....	622,476	352	428	314	316	257	273	2,246	2,477
Essex .....	1,060,549	674	529	369	344	274	263	1,692	1,914
Gloucester ....	775,627	969	922	607	578	500	454	1,567	1,458
Bristol .....	31,315							1,348	1,592
Hereford .....	534,823	257	192	114	118	94	88	457	567
Herts .....	391,141	387	350	169	190	136	133	883	980
Huntingdon....	230,865	106	69	37	44	38	35	267	260
Kent .....	1,041,479	1,112	999	713	787	774	729	3,904	4,330
Lancaster .....	1,148,976	3,454	3,151	2,958	3,590	3,341	3,003	3,760	4,167
Liverpool .....	52,789							8,918	9,525
Manchester and Salford }	17,458							6,707	7,313
Leicester .....	514,164	343	321	185	252	210	158	977	1,113
Lincoln .....	1,776,738	457	376	282	345	320	300	1,218	1,664
Middlesex ....	180,168	4,194	3,254	2,804	2,675	2,252	2,432	26,434	29,125

## Abstract of Criminal Returns, &amp;c., 1854-59.

11	12	13	14	15	16	17	18	19	20
		E.				F.			
Sentenced to Gaols and Magistrates.		Daily Average of Sentenced Prisoners in Gaols.				Boys Committed to Prisons.			
'58.	'59.	1856.	'57.	'58.	'59.	1856.	'57.	'58.	'59.
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
453	374	98	100	122	80	46	42	25	28
842	655	176	153	148	133	68	62	62	45
644	600	117	130	118	96	46	38	40	42
690	676	124	132	122	104	52	62	35	46
2,458	2,171	510	548	465	404	242	179	149	117
761	679	123	125	133	129	31	40	29	16
431	421	82	75	79	89	44	22	41	23
,095	1,000	234	258	244	215	79	69	49	39
2,128	2,189	329	338	312	304	202	188	153	159
604	572	136	122	107	99	52	47	38	22
,737	2,590	335	367	390	377	73	213	158	137
,919	1,618	253	304	281	239	175	163	128	86
,396	1,287	258	266	255	236	183	122	110	130
,373	1,487	182	225	204	172	199	175	116	129
505	524	65	83	71	59	18	18	14	25
952	796	146	159	158	132	94	58	65	49
270	165	39	44	44	31	11	9	23	9
800	3,461	650	716	691	695	285	279	225	236
145	3,884	961	887	972	843	279	210	217	228
350	7,858	832	1,086	1,102	931	708	502	387	404
208	6,395	1,132	1,163	1,165	987	751	827	622	401
082	906	262	298	297	256	84	110	139	89
839	1,723	228	271	302	284	63	89	77	77
,403	23,469	3,210	3,445	3,270	3,010	3,606	3,133	2,644	2,281

## (F.)—Counties of England and Wales.—

21	22	23	24	25	26	27	28	29	30	31	
Counties of England and Wales, (II.)	G.				H.						
	Girls Committed to Prisons.				Rev. S. Turner's Table.						
	1856.	'57.	'58.	'59.	Boys Con- victed, 1856.	Boys Sent to Reformatories, 1856-9.		Boys Con- victed, 1859.	Boys' Convictions <i>Reduced in</i> 1859 compared with 1856.		
	No.	No.	No.	No.	No.	No.	Pr. ct.	No.	No.	Pr. ct.	
Beds.....	2	3	5	4	46	28	60·8	28	18	39·1	
Berks .....	18	14	7	12	68	38	55·8	45	23	33·8	
Bucks .....	5	4	2	2	46	5	10·8	42	4	8·6	
Cambridge ...	5	8	4	5	52	9	17·3	46	6	11·5	
Chester .....	47	31	18	20	242	85	35·1	117	125	51·6	
Cornwall .....	12	3	12	13	31	—	—	16	15	48·3	
Cumberland....	9	11	5	6	44	19	43·1	23	21	47·7	
Derby .....	10	12	4	23	79	20	25·3	39	40	50·6	
Devon .....	34	36	35	22	202	51	25·2	159	43	21·2	
Dorset .....	8	7	12	6	52	23	44·2	22	30	55·5	
Durham .....	20	37	39	39	73	73	100·	137	increase		
Essex .....	17	13	15	12	175	35	20·	86	89	50·8	
Gloucester ...	41	19	7	19	382	163	42·6	259	123	32·1	
Bristol.....	20	29	18	12							
Hereford .....	5	7	4	3	18	9	50·	25	increase		
Herts .....	12	4	6	1	94	17	18·	49	45	47·8	
Huntingdon....	4	5	6	1	11	1	9·	9	2	18·1	
Kent.....	53	50	34	40	285	41	14·3	236	49	17·1	
Lancaster .....	63	23	30	29	1,738	694	39·9	1,033	705	40·8	
Liverpool.....	285	152	99	87							
Manchester } and Salford }	82	101	73	55							
Leicester .....	16	16	18	11	84	36	42·8	89	increase		
Lincoln .....	25	20	39	25	63	16	23·6	75	increase		
Middlesex ...	642	398	368	278	3,606	429	11·8	2,281	1,325	36·7	



## Abstract of Criminal Returns, &amp;c., 1854-59.—Contd.

32 I.	33	34	35	36	37	38	39	40
County Population, 1851.	K. County and Borough Police, 1858.			L. "Known Thieves."		M. Population (1851), to one known Thief (1859).	N. Prostitutes.	
	Men.	Cost.		1858.	'59.		1858.	'59.
Persons.	No.	Total.	Pr. Man.	No.	No.	One in	No.	No.
124,478	83	£ 6,454	£ 77	603	601	207	89	90
170,828	178	16,845	95	967	1,026	166	380	388
163,862	127	9,961	78	714	872	187	144	134
184,630	167	12,486	75	737	651	283	239	219
450,407	341	29,556	86	733	765	588	264	285
351,499	246	15,447	63	352	344	1,021	231	234
195,492	119	8,168	68	217	220	888	75	85
302,621	210	16,231	80	372	357	847	238	324
590,006	469	28,283	60	487	525	1,123	1,212	1,413
184,870	163	11,260	68	634	723	255	400	372
390,094	344	23,622	86	522	533	731	353	392
312,786	270	20,312	75	1,209	1,149	272	616	609
339,491	294	17,401	60	750	777	436	260	301
138,225	303	17,800	59	258	191	712	446	276
116,127	90	6,258	70	254	228	509	109	105
151,071	105	9,197	87	637	641	235	202	207
64,460	48	4,559	96	164	122	528	96	60
65,737	397	28,187	71	913	1,062	438	821	1,047
81,191	1,032	77,362	75	2,217	2,271	605	896	797
74,401	982	63,127	64	382	324	1,155	2,579	2,583
90,905	604	35,048	58	356	608	498	847	1,123
30,366	159	11,507	72	1,696	1,298	179	159	194
07,649	338	23,031	68	796	931	437	645	605
45,650	6,904	53,074	77	3,121	2,765	894	7,194	6,849

(F.)—Counties of England and Wales.—

1 A.	2 B.	3	4	5	6	7	8	9	10 D.
Counties of England and Wales, (I.)	Imperial Acreage.	C. Total Prisoners of all ages Committed or Bailed FOR TRIAL.						Total Offenders by Court	
		1854.	'55.	'56.	'57.	'58.	'59.	1856.	'57.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Monmouth ....	368,399	424	338	179	225	192	174	811	873
Norfolk .....	1,354,301	735	636	355	371	341	331	1,720	1,801
Northampton	630,358	294	295	191	182	119	162	883	937
Northumber- land .....	1,249,299	356	420	195	198	172	158	2,332	2,849
Notts .....	526,076	401	431	231	246	216	214	1,222	1,599
Oxon .....	472,887	313	276	194	129	140	107	840	830
Rutland .....	95,805	27	16	15	8	11	19	64	73
Salop .....	826,055	286	272	243	175	189	149	958	830
Somerset .....	1,047,220	716	585	389	382	355	281	1,536	1,640
Southampton	1,070,216	722	783	520	536	450	454	2,438	2,811
Stafford .....	728,468	1,137	1,030	717	625	585	569	3,685	3,780
Suffolk .....	947,681	578	403	262	275	228	191	1,117	1,320
Surrey .....	478,792	1,236	984	780	882	649	674	7,696	8,340
Sussex, <i>East</i> <i>and West</i> ....	934,851	557	462	308	299	330	271	1,298	1,580
Warwick .....	561,286	956	883	753	761	640	600	1,293	1,190
Birmingham	7,831							1,701	1,940
Westmoreland	485,432	59	33	13	27	22	25	255	230
Wilts .....	865,092	377	354	188	165	174	119	942	980
Worcester ....	469,620	595	673	405	419	388	302	1,478	1,500
York, West....	1,705,926	—	—	—	—	—	—	3,705	4,400
Leeds .....	2,100	2,089	1,999	1,544	1,627	1,515	1,296	1,245	1,600
East & North	2,121,260	—	—	—	—	—	—	2,628	2,970
Totals for England }	32,674,897	28,494	24,985	18,784	19,530	17,141	15,924	110,906	121,300

## Abstract of Criminal Returns, &amp;c., 1854-59—Contd.

11 12		13 14 15 16				17 18 19 20			
		E.				F.			
Sentenced to Gaols and Magistrates.		Daily Average of Sentenced Prisoners in Gaols.				Boys Committed to Prisons.			
'58.	'59.	1856.	'57.	'58.	'59.	1856.	'57.	'58.	'59.
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
822	784	128	148	148	133	42	35	42	21
1,669	1,647	232	268	260	255	187	188	147	116
883	904	241	193	222	191	79	63	64	67
3,055	2,355	313	274	280	248	220	162	188	150
1,352	1,308	223	254	216	219	119	134	132	88
778	658	123	131	128	103	44	43	53	23
63	64	9	9	9	7	4	4	2	1
1,072	974	131	129	149	120	67	28	31	46
1,531	1,458	275	264	255	211	171	142	100	132
2,582	2,427	409	450	423	402	239	255	189	144
3,772	3,587	622	655	676	901	209	222	189	179
1,306	1,152	205	209	188	193	123	104	79	78
7,504	6,247	1,012	1,209	1,136	953	1,317	1,437	968	701
1,487	1,387	273	284	279	265	150	146	94	107
1,219	1,155	265	282	266	248	91	65	78	80
1,554	1,417	359	359	367	313	265	244	143	119
249	218	23	33	26	25	12	12	9	8
863	722	169	180	163	121	37	56	47	59
,487	1,363	264	286	277	225	80	61	75	74
,386	3,631	689	821	822	635	372	226	219	154
,844	1,783	219	252	255	238	129	98	79	103
,143	2,892	613	583	620	554	295	244	212	186
,706	103,733	17,279	18,568	18,217	16,465	11,652	10,626	8,686	7,454



(F.)—Counties of England and Wales.—

21	22	23	24	25	26	27	28	29	30	31
Counties of England and Wales, (II.)	G.				H.					
	Girls Committed to Prisons.				Rev. S. Turner's Table,					
	1856.	'57.	'58.	'59.	Boys Con- victed, 1856.	Boys Sent to Reformatories, 1856-9.		Boys Con- victed, 1859.	Boys' Convictions Reduced in 1859 compared with 1856.	
	No.	No.	No.	No.	No.	No.	Pr. ct.	No.	No.	Pr. ct.
Monmouth ....	34	13	14	10	42	7	16·6	21	21	50·
Norfolk .....	15	15	11	8	187	107	57·2	116	71	37·9
Northampton	10	9	9	8	79	14	17·9	67	12	15·
Northumber- land .....	79	36	33	46	220	129	56·6	150	70	31·8
Notts .....	17	23	17	13	119	24	20·1	88	31	26·
Oxon .....	7	7	6	5	44	9	20·4	23	21	47·7
Rutland .....	—	—	1	—	4	—	—	1	3	75·
Salop .....	20	17	12	8	67	13	19·3	46	21	31·3
Somerset .....	35	36	28	15	171	45	26·3	132	39	22·1
Southampton	42	23	27	31	239	51	21·3	144	85	35·5
Stafford .....	77	22	26	37	209	47	22·4	179	30	14·8
Suffolk .....	15	7	21	11	123	44	35·7	78	45	36·5
Surrey .....	161	144	117	143	1,317	95	7·2	701	616	46·7
Sussex, <i>East</i> <i>and West</i> ....	31	38	23	26	150	36	24·	107	43	28·6
Warwick .....	14	7	11	18	356	223	62·6	199	157	44·1
Birmingham	49	38	17	21						
Westmoreland	8	1	3	5	12	5	41·6	8	4	33·3
Wilts .....	9	12	7	15	37	32	86·4	59	increase	
Worcester ...	29	22	27	18	80	62	77·5	74	6	7·5
York, West...	58	35	52	39	796	343	43·	443	353	44·3
Leeds .....	15	24	36	24						
East & North	38	35	41	33						
Totals for England }	2,198	1,567	1,399	1,260	4,252	1,286	30·2	2,577	1,628	—

## Abstract of Criminal Returns, &amp;c., 1854-59.—Contd.

32 I.	33	34	35	36	37	38	39	40
	K.			L.		M.	N.	
	County and Borough Police, 1858.			"Known Thieves."		Population (1851), to one known Thief (1859).	Prostitutes.	
County Population, 1851.	Men.	Cost.		1858.	'59.		1858.	'59.
		Total.	Pr. Man.					
Persons.	No.	£	£	No.	No.	One in	No.	No.
158,028	121	8,374	69	390	382	413	401	311
440,506	364	26,917	74	1,791	1,877	234	761	1,038
212,159	147	11,575	72	332	424	500	91	99
304,474	277	20,546	74	348	312	975	509	441
269,808	207	14,006	69	1,475	1,438	187	330	307
170,269	141	7,802	55	258	434	392	166	94
24,272	5	603	120	117	121	200	41	41
229,325	130	7,599	58	700	646	354	160	176
424,539	378	24,179	64	948	1,248	340	396	588
405,727	409	30,672	75	1,989	1,825	222	1,800	3,040
629,365	503	34,993	69	2,044	1,624	387	703	671
358,184	239	17,648	76	875	819	437	436	358
117,664	132	9,283	70	232	265	444	108	114
338,639	304	23,953	79	884	796	425	444	492
248,921	229	14,543	63	477	417	597	210	191
232,841	366	24,892	68	1,885	1,732	134	324	250
59,741	31	2,429	80	28	63	948	10	6
254,221	213	14,928	70	948	1,004	253	202	187
274,748	217	14,682	70	1,179	856	320	312	363
1,174,585	966	63,618	65	920	951	1,235	768	1,007
172,270	221	14,175	68	212	220	783	188	192
476,610	403	29,873	74	516	589	809	870	872
3,903,742	19,976	1,442,266	72	37,713	37,115	455	27,564	29,530

## (F.)—Counties of England and Wales.—

1 A.	2 B.	3	4	5	6	7	8	9	10 D.
Counties of England and Wales, (I.)	Imperial Acreage.	C. Total Prisoners of all ages Committed or Bailed FOR TRIAL.						Total Offenders by Courts	
		1854.	'55.	'56.	'57.	'58.	'59.	1856.	'57.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>WALES.</b>									
Anglesey .....	193,453	27	31	24	37	16	18	82	80
Brecon .....	460,158	51	71	48	28	33	41	142	113
Cardigan .....	443,387	15	17	16	10	21	15	171	246
Carmarthen ....	606,331	47	48	35	40	37	17	185	162
Carnarvon ....	370,273	59	58	33	40	44	37	120	148
Denbigh .....	386,052	87	78	48	62	51	51	233	250
Flint.....	184,905	50	37	33	32	33	44	120	132
Glamorgan ....	547,494	335	475	280	334	366	397	1,362	1,743
Merioneth ....	385,291	23	24	12	10	12	11	21	38
Montgomery	483,323	81	76	56	68	55	48	151	221
Pembroke ....	401,691	68	60	54	65	33	49	174	230
Radnor.....	272,128	22	12	14	13	13	22	69	66
North Wales	—	—	—	—	—	—	—	—	—
South Wales	—	—	—	—	—	—	—	—	—
Totals for Wales.... }	4,734,486	865	987	653	739	714	750	2,830	3,429
Totals for England }	32,674,897	28,494	24,985	18,784	19,530	17,141	15,924	110,906	121,394
England and Wales .... }	37,409,383	29,359	25,972	19,437	20,269	17,855	16,674	113,736	124,823



## Abstract of Criminal Returns, &amp;c., 1854-59—Contd.

11	12	13	14	15	16	17	18	19	20
Sentenced to Gaols and Magistrates.		E. Daily Average of Sentenced Prisoners in Gaols.				F. Boys Committed to Prisons.			
'58.	'59.	1856.	'57.	'58.	'59.	1856.	'57.	'58.	'59.
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
118	82	14	18	20	12	—	5	5	—
129	149	28	28	23	24	1	2	4	9
52	64	11	12	12	14	12	11	2	2
174	154	33	37	35	35	3	4	3	5
171	196	29	31	34	31	2	2	2	1
235	217	34	36	34	36	12	10	7	2
179	147	17	18	25	22	8	3	2	4
1,806	1,850	234	266	247	267	92	132	114	95
84	63	7	9	11	10	—	—	1	4
213	184	28	35	41	29	5	8	3	2
216	269	44	45	40	40	17	16	6	4
81	64	11	14	16	17	4	3	2	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
3,458	3,439	490	549	538	537	156	196	151	128
14,706	103,733	17,279	18,568	18,217	16,465	11,652	10,626	8,686	7,454
18,164	107,172	17,769	19,117	18,755	17,002	11,808	10,822	8,837	7,582

(F.)—*Counties of England and Wales.*—

21	22	23	24	25	26	27	28	29	30	31
Counties of England and Wales, (II.)	G.				H.					
	Girls Committed to Prisons.				Rev. S. Turner's Table.					
	1856.	'57.	'58.	'59.	Boys Con- victed, 1856.	Boys Sent to Reformatories, 1856-9.		Boys Con- victed, 1859.	Boys' Convictions <i>Reduced in</i> 1859 compared with 1856.	
WALES.	No.	No.	No.	No.	No.	No.	Pr. ct.	No.	No.	Pr. ct.
Anglesey .....	2	—	3	1	—	—	—	—	—	—
Brecon .....	—	—	1	—	—	—	—	—	—	—
Cardigan .....	6	6	1	—	—	—	—	—	—	—
Carmarthen ....	4	4	2	2	—	—	—	—	—	—
Carnarvon ....	5	1	1	1	—	—	—	—	—	—
Denbigh .....	2	—	2	—	—	—	—	—	—	—
Flint .....	—	3	4	1	—	—	—	—	—	—
Glamorgan ....	90	86	77	63	—	—	—	—	—	—
Merioneth ....	—	—	—	—	—	—	—	—	—	—
Montgomery	—	1	—	1	—	—	—	—	—	—
Pembroke ....	1	1	2	1	—	—	—	—	—	—
Radnor .....	—	—	—	—	—	—	—	—	—	—
North Wales	—	—	—	—	27	3	11'1	9	18	66'6
South Wales	—	—	—	—	125	32	25'6	101	24	19'
Totals for Wales.... }	110	102	93	70	—	—	—	—	—	—
Totals for England }	2,198	1,567	1,399	1,260	—	—	—	—	—	—
England and Wales .... }	2,308	1,669	1,492	1,330	—	—	—	—	—	—

## Abstract of Criminal Returns, &amp;c., 1854-59—Contd.

82 I.	33	34	35	36	37	38	39	40
County Population, 1851.	K. County and Borough Police, 1858.			L. "Known Thieves."		M. Population (1851), to one known Thief (1859.)	N. Prostitutes.	
	Men.	Cost.		1858.	'59.		1858.	'59.
		Total.	Pr. Man.					
Persons.	No.	£	£	No.	No.	One in	No.	No.
57,193	20	1,857	93	66	74	773	15	17
61,278	34	2,367	70	9	8	7,659	19	21
70,756	31	2,187	70	41	42	1,684	10	11
110,819	62	4,270	69	149	161	743	19	33
97,383	40	2,900	72	64	84	1,521	36	57
92,583	53	3,760	71	60	46	1,543	46	15
68,082	45	2,590	57	20	11	3,404	—	2
250,863	222	14,793	67	1,604	1,659	151	940	916
38,880	19	1,395	73	22	22	1,767	—	—
67,335	29	2,265	75	118	129	524	57	59
95,190	51	2,935	57	146	180	528	51	113
24,648	15	1,216	80	20	7	3,521	3	6
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
3,035,010	621	42,535	67	2,319	2,423	427	1,196	1,250
3,903,742	19,976	1,442,266	72	37,713	37,115	455	27,564	29,530
4,938,752	20,597	1,484,801	72	40,032	39,538	453	28,760	30,780



(G.)—*Suggested Scale of Classification intended to Simplify and render Uniform the Police Designations of Dishonest and Criminal Characters.*

(I.)—COUNTRY LABOURERS.

- a. A labourer ; was convicted 2 years ago of stealing some old hurdles from his master for fire-wood. Hitherto supposed to be of good character, but probably has been in the habit of doing the same before.
- b. Labourer ; 2 years ago stole a hatchet from his master, and sold it. Three months' imprisonment. Since then working steadily.
- c. Labourer ; stole a coat and a pair of boots one year ago from a neighbour's garden. Three months' imprisonment. Since then in regular work, but given to drink, and not well thought of.
- d. Labourer ; convicted 2 years ago (one month), and again, 8 months since, (3 months' imprisonment). In regular work, but appears not to live more expensively than his wages warrant.
- e. Three times convicted in 10 years,—1 month, 3 months, 1 month. Not well thought of, but we cannot say that he seems to spend more than his wages warrant.
- f. Four times convicted in 5 years, and often suspected of having stolen other things ; all however, were things lying in his way, and he seems not to be able to resist temptation ; he is in nearly constant work when out of prison ; earns about 10s. a-week, and his wife and one child about 3s. more ; lives much as others do who earn similar wages.
- g. Three times convicted in 5 years, and often suspected, but two of the offences were going out at night to steal coal from one and potatoes from another of his neighbours, has been frequently suspected of such thefts ; still he earns 11s. a-week and his wife 2s., and we cannot see that he lives beyond it.
- h. Four times convicted in 10 years, twice breaking into a cottage in the day time and stealing to the value of 3l. from one, and 1l. from the other. generally suspected ; frequently out of work, perhaps altogether 3 months in the year. Lives very poorly generally but sometimes is drunk for three or four days together when out of work, and then seems very poor again.
- i. Twice convicted in 5 years, both times entering a cottage in day time while the people were out ; generally suspected ; works about one half his time, Lives sometimes very poorly, sometimes spending money freely. We can't see that he can earn so much as he spends ; probably his earnings, 10s. a-week when in work, would make two-thirds of his spending.
- k. Only once convicted 4 years ago, but is generally thought ill of. Works only half his time ; and at times appears to have plenty of money. There have been many complaints in the neighbourhood of fowls lost, gardens robbed, &c., but none have been detected ; he appears to spend about twice as much as he earns.
- l. Four times convicted in 10 years. Single man, frequently absent from the parish for a month or more. Works not above a quarter of his time while he is here. Should say, he spends three times as much as he earns.

## (II.)—TOWN LABOURERS.

- a.* Journeyman gunmaker ; convicted 3 years ago. Since working for the same master without suspicion.
- b.* Porter ; twice convicted in the last 3 years, but of very small offences ; still working with the same master, does not appear to spend more than others who have similar wages.
- c.* Shopman ; twice convicted ; given to drink. Does not appear to spend more than he earns.
- f.* Wood-Turner ; four times convicted in 5 years ; bears a bad character, but does not appear to go out of his way to steal, but cannot be trusted in any temptation. Earns 15s. a-week, can't say he seems to spend more.
- g.* Four times convicted ; twice for stealing vegetables at a night from a garden outside the town, where he had no business to go ; but he is in constant work, and we cannot say he spends more than his wages.
- h.* Three times convicted in 5 years ; generally distrusted ; lives very poorly ; is out of work about two months in the year ; now and then drinks freely for three or four days, but generally seems poor.
- i.* Twice convicted ; seldom keeps a place long ; is half his time out of work ; lives poorly, but often drinks. We should say spends twice as much as he earns.
- k.* Only once convicted ; 3 years ago ; a clever workman but always distrusted, and half his time idle ; but always seems to have plenty of money. We don't see how he can earn half of what he appears to spend. Is occasionally found drinking with L, and others of the same class.
- l.* Pretends to be a joiner, but seldom appears to work at his trade ; generally has plenty of money. Twice convicted in company with X, Y, and Z, known thieves.

## POACHING.

- a.* Convicted 3 years ago of wiring a hare in his neighbour's hedge, not since suspected. Regular work.
- c.* Twice convicted of wiring hares ; one in a covert a mile from his house. Is in regular work and not generally of a bad character.
- f.* Four times convicted of wiring hares and rabbits in different coverts, but in regular work and does not appear to spend much, if any more, than his wages.
- g.* Three times convicted, and frequently seen watching coverts, but is in regular work, earns a-week, and does not appear to spend more.
- h.* Four times convicted ; works steadily in summer but not above half his time in winter ; frequently drunk, but lives generally very poorly.
- i.* Twice caught trespassing in pursuit of game ; works regularly in summer, but little in winter. Lives better and drinks more in winter than summer. Probably in winter two-thirds of his living is by poaching.

- k.* Keeps a low public-house with little custom except poachers. Frequently has large numbers of live pheasants in a loft. *K* occasionally goes from home for three months together with *L*, *M*, and *N*. Appears to have three times as much money as his beer-shop will account for.

#### BOYS.

- a.* Lives with his father : once convicted 3 years ago of stealing six turnips.
- b.* At home ; 2 years ago stole a knife from another boy.
- f.* Three times convicted in 4 years ; and thought generally dishonest but has only been known to take things that lay in his way ; not going out at night or getting other boys to help him. Lives entirely at home, where he has enough to eat.
- g.* Three times convicted in 5 years, often suspected ; lives at home, but is very idle, and often in company with a bad lot of idle boys.
- i.* Three times convicted of regular shop-lifting, in company with other boys. Lives at home, but steals to get small luxuries, porter, cakes, &c.
- l.* Absconded from home, and has lived two years in (Lisson Grove, White-chapel, &c., London ; St. John's Market, Liverpool, &c.,) occasionally holding a horse, or carrying a parcel from a railroad, but mainly as a pick-pocket, shoplifter, parlour jumper, damper drawer, or the like.

*Note.*—The above is a merely fictitious set of cases, but if the Statist would send such a list to each chief of police and say, “I wish you to enter as known thieves all such cases as *h* and those below, but not such cases as *g* and those above ;” the Yorkshire police would enter far more, the Gloucestershire far less, and gentlemen who write in the newspapers, would not maintain that “every one who is entered as a known thief gets *his whole living* by theft.”

If he were to say “I wish you to class *d*, *e*, *f*, *g*, *h*, as *dishonest*, *i.e.*, people who yield to temptation when temptation lies in their way ; and class *i*, *k*, *l*, as “known thieves, because they systematically form schemes for theft ;”—such a plan would give still further information.

I have left it purposely uncertain *where* the line should be drawn ; only let the Statist draw it in the same place for all counties, and let us know where it is drawn, and then the Statist, the Police, and the Magistrates, will understand each other.



*On the PRINCIPLES of an INCOME TAX.**By the REV. DR. BOOTH, F.R.S., &c.*

[Read before Section (F), at Oxford, June, 1860.]

[AT the late meeting of the British Association, held at Oxford, I brought under the notice of the Statistical Section, my views on the true principles of an Income Tax. As the opinions which I there advanced met with considerable opposition, and much support; as the subject is one of universal interest; and as I have been requested by very many persons to place these views more widely before the public, it seemed to me that I could in no other way with more propriety do so than by giving an exposition of them in the form of a letter addressed to your Lordship, not only as being the President of the National Social Science Association, but still more because it is known to every one that, while your Lordship during a long and busy life has been actively engaged in the promotion of legal, political, social, and moral reforms, you have never given over the successful cultivation of all the exacter sciences and their application to the profoundest problems of physics, and the more complicated questions of political economy.]

## I.

The subject of the true principles of an Income Tax, independently of its scientific value, is one of the utmost practical interest. It affects the scientific and the unphilosophical alike. We may ignore its theory, but we must make ourselves acquainted with its actual working. It is one of universal concern; it comes home to us all, at any rate to all of us who are obliged to receive the visits of the tax collector. It is a subject, too, on which every one believes himself competent to form a just opinion. The taxpayers feel that they have bought and are paying for the privilege to discuss, and the right to complain. How many hundreds of letters in the "Times," how many speeches in parliament, how many platform orations, have denounced, and still continue to stigmatize the injustice of the principle of Schedule D. What can be more iniquitous, it has frequently been said, than that the man who hardly earns a precarious income by the practice of a profession, should be taxed as highly as the inheritor of a landed property? What can be more flagitious than to exact from the incumbent who has only a life interest in his benefice, as much per cent. as the peer is called on to pay whose ancestors have held the family estates since the Conquest?

All this, with much more to the same effect has been often stated. I know of no question on which so much of hot vituperation has been poured out, or so much impassioned invective wasted. How repeatedly has the triumphant appeal been made to self-evident maxims, to the fundamental principles of political economy, or to the manifest conclusions of common sense. Yet, notwithstanding all this, the tenpence in the pound is still exacted, alike from him who by severe labour scrapes together a few hundreds in the year, as from the man of landed property, and the possessor of money in the funds, who draw their thousands through their broad acres or from the Bank of England. Now there must be some reason for this, and as almost every question has not one only but several sides, I have little doubt that the latent, but undeveloped truth which lurks under the opposite view, has tended to perpetuate this so-called gross abuse and crying iniquity.

If, then, I venture to take an entirely opposite view of the question; if I endeavour to show that under that state of things which is likely to be perpetuated in this country—a perpetual Income Tax—it *is rigorously true that all incomes, however varied their origin, should alike pay the same percentage*; if I prove it to be mathematically exact that the holder of a temporary refreshment stall on a race-course should contribute as large a proportion of his receipts in the shape of Income Tax as the wealthy owner of one of the palatial mansions in Belgrave Square, and that the medical practitioner or the clergyman should pay relatively as high an income tax as my Lord Broadacres or the Duke of Omnium, it is with much diffidence of their reception, but no doubt of their truth, that I venture to uphold such unpopular propositions. I may also add, that unlike most advocates whose feelings and wishes give weight to their arguments and point to their illustrations, I, on the other hand, am hampered by the consciousness that my wishes are opposed to my convictions. But truth is strong, stronger even than prejudice or party feeling.

To ask what are the true principles on which an Income Tax should be imposed is an inquiry just as vague as to demand the value of  $x$ , if  $x + y = 10$ , or to ask how much water under a constant pressure will pass through a circular orifice an inch in diameter. It is evident these questions are indeterminate, an element of a definite solution being absent. In this latter case the question does not admit of a definite answer, because it is not stated during what *time* the water must be assumed to run through the circular orifice. So the question is alike vague to ask on what principle should an Income Tax be imposed, without stating the proposed duration of the tax or the period of time for which it is to continue.

As *time*, then, is the all-important element in determining the



principles on which a just Income Tax should be imposed, I shall now proceed to discuss the two extreme, or, as mathematicians would call them, the limiting cases of such an impost. These are, when the tax is to be for *one year* only, secondly when the tax is to be *perpetual*.

When the tax is to be laid on for a certain number of—say three, or seven, or ten—years, the true solution may be obtained by introducing this definite term into the conditions of the extreme cases of the problem.

## II.

When an Income Tax is to be imposed for *One year only*, or, to speak with more precision, should the State demand a single contribution from the available material wealth of the nation, to be made in proportion to the share of that wealth which each person in the community enjoys, then undoubtedly the true principle of assessment would be to value the portion of each separate individual; to *capitalize* it, as the phrase is, and to make the levy on the value thus ascertained. To use a common illustration,—A derives 1,000*l.* a-year from land worth twenty-five years' purchase, or 25,000*l.* while B earns 1,000*l.* a-year, professional income, worth say only five years' purchase. This proportion being thus assumed, the contribution of A to the State should be five times as much as that of B, or nearly so, for disturbing elements of small magnitude must be omitted, a clear exposition of principles, not minute accuracy of detail, being all that is here required. This principle of assessment has often been strenuously advocated. It holds true, however, but for one payment, and implies a guarantee against a repetition of the demand. When income is once capitalized and compounded for, it cannot again, in justice, be subjected to the same process. A yearly capitalization of income and the payment of a tax thereon would be as absurd in principle and as iniquitous in practice as an annual redemption of the land tax. Yet this is the principle which so many contend for, and which supplies the material for so much popular invective and platform declamation. But the fact is never taken into account that there is no instance of an Income Tax imposed for one year only. Sir Robert Peel's original Income Tax was limited to a duration of three years. The inherent injustice of the principle has been neutralized to a great extent by nearly a twenty years' duration.

## III.

In the next place, let us consider the case of a *Perpetual Income Tax*. On this assumption all incomes, whatever their source may be, should be equally taxed. The profits accruing from the most casual employment or transient occupation should be rated as heavily as



income derived from unencumbered landed property or from the public funds. This is evident, for assuming the tax to be general and perpetual, it presses into action whenever and wherever an opening offers; it comes into being with income, it grows with its growth, diminishes when it wanes, and comes to an end when the income ceases. Thus income and the Income Tax always exist side by side. To revert to a former illustration, while the refreshment stall on the race course will make but a single payment, the house in Belgrave Square will contribute, it may be, for some two centuries to come to the needs of the State. Income is the sole point to be considered on this assumed state of things, namely, a perpetual Income Tax; we have nothing to do with capital or the origin of income. That a perpetual Income Tax should have regard solely to the income whence it is derived, without any reference whatever to the nature of the capital which produces that income, is a truth of the most rigorous mathematical exactness. But as this question has been overlaid with fallacies and popular notions, it may be well to give a little further illustration of this principle.

It is said to be essentially unjust to tax alike incomes derived from temporary and permanent sources; to rate as heavily an income of 1,000*l.* a-year laboriously earned by the exercise of a profession as 1,000*l.* a-year coming in from unencumbered landed property. But are they taxed alike? Are the sums thus contributed to the State equivalent? That they are not is plain from this consideration, that if these two taxes of the same annual amount, one a perpetual charge on the land the other a life charge on professional income, were to be set up for sale in an auction mart, the one would realize five or six times as much as the other. This is on the supposition that the charges are *Permanent*, were they only of one or two years' duration their selling prices would differ very little.

This is a very simple way to put the case. Suppose the Income Tax permanent, and that persons had the option to compound for their Income Tax with the State by a single payment once for all; is it not obvious that the owner of the property in land or the funds would be charged on a much higher scale of composition than he whose income was derived from transient or uncertain sources.

#### IV.

We may consider this question from another point of view, and we shall find, from whatever position we examine it, the resulting conclusions are the same. Let us suppose, as I at first put it, that the State demanded from each of its subjects a single contribution proportionate to his means, and that for the purpose of making an equitable assessment every person's income was to be "capitalized," as I assumed above in the case of an Income Tax imposed for one

year. Let me further suppose that the State, having no urgent need to call up the whole of the tax at once, should arrange to receive it by instalments. Now, it is manifestly clear that the number of years over which the State might consent to spread the payment of these instalments can never exceed the number of years' purchase at which the income may be valued. Otherwise there might be no property in existence to meet the last instalments. Thus, again to revert to the illustration I have already used: A's income of 1,000*l.* a-year, derived from land, may be capitalized at twenty-five years' purchase, or it is worth 25,000*l.*; while B's professional income of 1,000*l.* a-year is worth only five years' purchase. Hence A's contribution will be five times as much as that of B, but as he may be allowed five times as long to pay it in, his annual payment will be precisely the same as B's. Thus from another point of view, and following a different line of argument, we reach the same result. I have omitted all consideration of the disturbing element—compound interest,—as clearness of illustration, not accuracy of result, is all that is here required.

A good deal has been said about the manifest injustice of taxing *Terminable and Perpetual Annuities* on the same scale. Now, if we assume the Income Tax to be permanent there is no injustice whatever in this. Every terminable annuity is equivalent to a certain perpetual annuity of smaller yearly value. They represent the same amount of capital, and are convertible one into the other. Given the one it is a matter of simple calculation to find the other. Now to the State it is a matter of utter indifference whether the larger Income Tax be paid on the terminable annuity or the equivalent smaller one on the equivalent perpetual annuity. For the terminable annuity *t* being equivalent or equal in value to the perpetual annuity *p*, any given part of the former, *i. e.* the Income Tax, must be equivalent to the same part of the latter. That is, equivalent in value, not equal in amount. Thus, suppose a 3 per cent. perpetual Income Tax, and that a perpetual annuity of 100*l.*, were equivalent to a terminable annuity of 200*l.*; it is clear that the 3*l.* Income Tax payable on the former would be equivalent to the 6*l.* payable on the latter. It is strictly accurate,—assuming the Income Tax to be a perpetual and invariable charge,—that terminable annuities should be charged as high a rate of Income Tax as perpetual annuities. Or to put the same proposition in another form, suppose these two annuitants on the purchase of their respective annuities, namely, the perpetual annuity of 100*l.* and the terminable annuity of 200*l.*, which represent the same amount of invested capital, were to buy two other annuities of the same duration, one of 3*l.* the other of 6*l.*, to meet the annually recurring Income Tax of 3*l.* per cent., is it not clear that these two annuities would cost precisely the same sum?



Hence the contributions to a perpetual Income Tax from the same amount of capital thus diversely invested would be exactly equivalent.

It is manifestly clear, that if a person thinks fit to anticipate the income of futurity by investing his capital in a terminable annuity, the State has a perfect right to forestall its failure by a higher charge during its continuance, just as a landlord might fairly demand a higher rent from a tenant who proposed to exhaust his farm in a few years by heavy and successive cropping.

## V.

This conclusion, moreover, illustrates my main proposition, that under a permanent Income Tax *All Incomes* should be taxed on the same scale. For a terminable annuity may be taken as the type of professional incomes, while perpetual annuities are analogous to incomes derived from unfailing sources, such as landed property, money in the funds, &c. Nothing could be more unjust in principle than Sir Robert Peel's uniform Income Tax imposed for three years only. But its inherent injustice has been neutralized in a great measure by its unforeseen and continued duration. While the same landed estates and palatial mansions still continue to pay the tax as when first imposed, how few remain of the professional incomes that originally contributed to that impost.

I have often thought that a simple and suggestive illustration of the nature of property and income, and also of the Income Tax as well, might be drawn from comparing the wealth of this country to a Pond or Lake fed by underground springs, the overflow of which—analogue to income—certain persons had the privilege or right to draw off and take away; some only a glass a day, others a pint, some a quart, several a gallon, and some few a hogshead; and that while some enjoyed this privilege for a day, others had it for a week, several for a month, and a few for a twelvemonth. Let us further make the supposition, that in return for the privilege thus conferred, all were required to give up a certain portion of the water when drawn off. Now, it is obvious there are two ways by which such a water-rate might be levied: either that each person should, every evening, contribute his portion of the water-rate, in which case it would be wholly superfluous to inquire into the duration of the water-privilege enjoyed by each; the only thing necessary to be ascertained being the quantity of water daily drawn by each person; or secondly, that each person should once for all compound for his water-privilege, in which latter case it would be absolutely necessary, with a view to ensure a just assessment, that not only the water daily drawn by each should be known, but also the duration of the privilege. The man who had a right to draw a gallon of water daily for a twelvemonth ought



surely to pay more than he who enjoyed a like privilege only for a week. So in like manner, when we assume the Income Tax to be perpetual, we elude the necessity of considering the *origin* of income, but when the tax is once for all, the *value* of each man's means must first be ascertained before a just Income Tax can be imposed.

The case when an Income Tax is imposed for a certain *definite period*—three, or seven, or ten years, suppose—is much more difficult to investigate than the elementary limiting cases above discussed. The true principle of assessment will be a combination of the two extreme principles which govern the two elementary cases above examined, namely, when the tax is for one year only, and when it is perpetual. A little calculation, which it is not here necessary to go into, would bring out the true compound principle in all such cases. But as my object in this paper has been the investigation of principles, and not the discussion of details, it is beside my purpose to proceed with the inquiry.

## VI.

Before I conclude it will not be out of place if I say a few words on the subject of the proposed "Wealth Tax" of the Liverpool Financial Association. If I understand their object rightly, they would propose a tax upon Capital itself, which they would call a Wealth Tax. Now, such a proposition is not only unjust in principle but inoperative in practice. When the capital to be taxed consists of money in the funds, or of houses, or lands, or of capital paying an annual income, the tax, though iniquitous in principle, may be levied by annually abstracting a portion of the capital. But how is dormant capital to be taxed? A man, we shall suppose, inherits a Coal mine, or has found a gold mine on his estate. These mines are of very great value, but their owner does not choose to enter into mining speculations: no income is derived from them: on what principle are they, or rather how can they be taxed?

Again, a man of small income inherits a valuable Library, or a choice gallery of rare and splendid paintings. These are wealth, for if brought to the hammer they would realize thousands, but their owner does not choose to part with them, he declines to exhibit them for money; he derives no income from them; how is he then to be brought within the sphere of a wealth tax?

Many years ago the pilferer of the celebrated Pitt diamond fled from India and reached this country in a state of destitution. He was possessed of a large capital for he afterwards sold the gem to the Empress of Russia for an enormous sum, but before he effected this sale and converted his dormant capital into an income-producing capital, I should be glad to be informed how he could have been compelled to pay a wealth tax?

Or to take a more general case, a poor man has a very large reversionary interest in lands, or money in the funds. This is wealth, for the reversioner may sell his future enjoyment of it, for a present ready money capital. But if he should not choose to do so, and had rather live on in present poverty, how is a wealth tax to be extracted from him? Many other instances may be supposed, but these will suffice.

But in reply to this view it may be urged, if the owner of the valuable but unworked mine, if the inheritor of the choice picture-gallery, if the holder of the rare diamond, if the pauper reversioner will not consent, or cannot afford to pay a wealth tax on their inert and incomeless capital, may not this unproductive wealth be brought into the market and sold to those who will be prepared to find the funds to meet the wealth tax imposed on this barren kind of riches. Let the mine and the picture-gallery, and the rare gem and the reversionary interest be sold. But this proceeding would not in the smallest degree meet the difficulty. For suppose A sold 10,000*l.* Consols to enable him to buy B's mine or picture-gallery, the only change that such a transaction could make would be simply this, that as regards the State A would henceforth stand in the place of B, and B in that of A; or in other words, A would *cease* to pay Income Tax on the 10,000*l.* Consols sold to B, and would have become the owner of the mine or picture-gallery, while B would *begin* to pay the Income Tax on the consols thus transferred to him. If this process of transference were to be a hundred times repeated in succession, the final result would still be the same. The impossibility could not be got over to make the mine, or the picture-gallery, or the diamond, contribute to a wealth tax; but let the mine be worked, or let the picture-gallery be turned into a paying exhibition, and immediately the true principles of an Income Tax may be applied.

Again, on what principle is the action of a wealth tax to be applied? Suppose this case. A invests 10,000*l.* in Consols, B invests the same sum in the purchase of land, and C buys 10,000*l.* worth of shares in the Atlantic Telegraph Company. Now here are three several capitals of 10,000*l.* each. On what principle is a wealth tax to be applied to them. Are they all to pay alike: you would not say so, for this would be impossible and unjust. Would you tax in proportion to the income drawn from each investment? This would be fair, but what is this but an Income Tax? Hence I think it clearly follows that a wealth tax must either be a disguised and excessive Income Tax, or if it be not, it will be found on analyzing its essential principles, to be either an impossibility or a confiscation.

It is a very unphilosophical view to assume that Money is the



only capital—skill is capital—knowledge is capital—brains are capital; for when developed into action they become sources of income. Take our most eminent physicians or first-class lawyers earning their thousands a-year; of what does their capital consist? Is it not of their talents, their knowledge, their energy, and their skill. If they were to refuse to energise the action of their intellect, and decline to practise, how could your tax on capital reach them? What should we say of one who, entitled to a fixed portion of an orchard, would, at every gathering of the produce, insist on taking away not only his share of the fruit, but also a portion of the trees which bore the fruit as well? These few illustrations will serve to show how erroneous in principle, and inapplicable in practice, is the Wealth Tax of the Liverpool Financial Association.

Again, it is frequently said, how unjust to make the professional man, who earns his income by his own labour, to pay as much as the nobleman or capitalist, who has nothing to do but to receive his rents at his half-yearly audit, or to drive down to the bank and draw his dividends. Now this argument, if it is to have any force, must proceed on the assumption that a state of idleness or lack of occupation is in itself a more desirable or eligible condition for a man to be placed in, than another in which his energies, physical, intellectual, and moral, must be developed, and thus promote his own happiness and well-being.

But can it with truth be said, that the merchant successful in business, the lawyer rising in his profession, the physician rapidly extending his practice—I am here speaking only of the prosperous, the argument does not apply to the unfortunate, or to those who have fallen behind in the race of life—are not in every respect happier and more to be envied than the man who has nothing whatever to do, whose every wish may be gratified without exertion, who is palled by enjoyment, who has nothing to hope and but little to fear. The old Hindoo philosophy taught that the perfection of human happiness consisted in a man's sitting still and contemplating the tip of his nose.\* We cannot accept this definition of happiness, and therefore must ignore the claim of those who would seek a money compensation for the highest privilege which it is given to man here to enjoy—the exercise of the intellect in prosperity.

## VII.

I shall be quite satisfied if the arguments I have advanced, and the illustrations I have used, will help to remove a wide-spread illusion and popular fallacy. Strange to say, that those persons who

\* .... "intuens nasi sui apicem." See the Bhagavad-Gita as illustrated by V. Cousin in his "Cours de l'Histoire de la Philosophie," vol. i, p. 231.



would be most aggrieved by the conversion of the Income Tax into other and indirect taxes, are the most clamourous for the change. The middle classes, or at least the great majority of them, seem to imagine that a temporary Income Tax is more just in principle than one moderate in amount and permanent in duration. They hold the erroneous opinion that a tax levied on all incomes alike, is on them a peculiar hardship. They clamour, many for its abolition, most for its reduction, apparently ignorant of the truth, that if their wishes were complied with and the tax abolished, they would have themselves to make good far the largest share of the deficiency thus created.

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FACTS and STATEMENTS *illustrative of the TRADE of SUEZ, and of the COMMERCE of the RED SEA, as at present carried on.*  
By G. F. DASSY, of Constantinople.

[MR. DASSY has been good enough to send to the Society a copy of a pamphlet by himself on the subjects stated above, dated and printed at Constantinople, in December, 1859.

The pamphlet is manifestly the production of a gentleman extremely well acquainted with the Red Sea Ports and their commerce, and in the present state of public questions relating to the East, the following extracts from the publication of a writer so well informed, will possess both interest and value.

The tables appended to the pamphlet are curious, but for them we cannot find space.—ED. S. J.]

The first extract relates to the Town and Port of Suez:—

“*Sueis* being built on the desert and being devoid of springs, raises for its own consumption nothing but a few sheep and goats, which find a scanty pasture on the scattered herbage of the neighbouring desert. A few fish, of which the quantity might be increased were the fishermen more skilful and encouraged in their calling, are procured from the sea.

“The bulk of the provisions for the inhabitants of the town who number about 6,000, is brought from the valley of the Nile, which is communicated with by camel routes debouching at Balbeis, Cairo, Basatin, Helwan, and other places as high as Beni-Suef. Cairo furnishes by far the greatest share of these provisions, which ought to be forthcoming in greater abundance now that the railway is at work. Good potable water\* also, is procurable from Cairo. The Nile is the one type of abundance to an inhabitant of Sueis; and Cairo a more important Capital, in his eyes, than Constantinople, London, or Paris.

“There is a spot about eight miles from the south of the town of Sueis, on the eastern side of the gulf, and a mile and a half inland from the sea, called the ‘Oyùn Mùsa,’ or Moses Wells, from its being assumed to be the place where the Israelites first halted after passing the Red Sea. These springs, all overflowing, constant, thermal, and slightly brackish and sulphureous. Similar springs occur at other points on the same coast; and on the opposite coast, about twenty-five miles south of the latitude of the ‘Oyùn Mùsa,’ and in the Nile Valley at Helwan above mentioned.

“Within the last twenty years, the water of the Oyùn Mùsa has been turned to successful account for garden cultivation, with the result of a pretty green oasis, which offers a pleasant retreat to

\* A distilling apparatus on a small scale, for distilling fresh from sea water, was used with success during the continuance, lately, of the British Hospital at Sueis.

the wealthier people of Sueis during the summer heats, and an increased stock of vegetable food for the townspeople all the year round. Great credit is due to MM. Costa, Levick, Kodsy, Manoula, and others, for their efforts in this direction.

“It is surprising that Sueis with its pleasant climate and accessories of sea air, and bathing, and inexpensive living, is not used as a watering place by the people of Cairo in preference to Alexandria, where the atmosphere is humid, and life is divested of the charm of its natural simplicity.”

Mr. Dassy gives the following account of the mode of conducting the Trade of the Red Sea:—

“The mode of conducting the *Trade of the Red Sea* has probably undergone little change from the time when Solomon declaring all to be vanity, yet sent his fleets along its waters to traffic for gold, and pearls, and ivory, and ebony, and shittim wood, and male slaves, and female slaves, and eunuchs. Why these are the wares of trade that still traverse the sea and frequent its ports; and amidst the decline and fall of empires, and the instability of peoples, it is pleasant to contemplate a scene which has outlived history, and presents visibly to our faculties a piece of the world under its ancient and patriarchal conditions, where the language that was spoken by Job, and Agar, and Ishmael, and in which the prophet delivered the institutions of Islam, still lives. Steam, however, is pushing its inexorable way into these hitherto excluded regions, and unless nature be proof against art, bids fair soon to change the manner of their inhabitants, and to make the Arab, after he has withstood innovation for more than 4,000 years, acknowledge its power—a power that will attack him by reducing his isolation, and subdue his independence by multiplying his physical wants—with what result to his happiness the future will reveal; only he has no choice between courting the new agent of his destiny or being driven out of existence by it.

“The general trade of the Red Sea centres at *Geddeh*. It is most active there from *January to June*, which is called the season of the ‘mosim’ which may be translated ‘mart.’ The articles in which it chiefly consists will be indicated in future passages. Besides the things herein enumerated, must be mentioned Cloves, precious Stones, and Pearls, and a particular kind of marine wood obtained from the bottom of the sea, called by the Arabs ‘yusr,’ and by the Europeans, erroneously, black coral.

“The season of the mosim at *Geddeh*, is determined by the circumstance of the Winds being, at its commencement, favourable for the passage of vessels to *Geddeh* from the north of the sea, and from India and the south; and for their return at its termination; and is, therefore, probably of very ancient custom. The ships trading between *Geddeh* and India, Java and the eastern settlements, *still make but one voyage annually*. So that if Solomon sent his behests to *Geddeh*, as he would have done if *Geddeh* then formed the port of entrepôt, towards January or February, they would have been transmitted from *Geddeh* to eastern countries in August or Sep-



tember, and if of a nature to require delay for their execution in those countries, could only have been executed in time for the vessels returning to Geddeh in the February of the third year. At Geddeh the articles would have waited till October or November for southerly winds, and finally have reached Ezion-Gaber about three years after the orders had been despatched for them. The same course of trading, substituting Sueis for Ezion-Gaber, is still followed, though with the difference, in respect of time, due to the quicker navigation which now prevails. Merchants, residing in Jerusalem or Cairo, sending their orders for particular goods from the East through the ordinary commercial channels of Sueis and Geddeh, only receive them after the four distinct voyages mentioned, in one or two years, according as the goods ordered can be prepared in time for the first return voyage from the East or not.

“ *Geddeh*, which is also the seaport of Mekkeh, contains a population of 30,000 souls, and is situated conveniently for trade, 650 geographical miles south of Sueis, and the same distance north of Bab-el-Mandeb. Mekkeh has a population of 40,000, increased during the time of the pilgrimage to 100,000 and more. It is distant from Geddeh, by donkey ten, and by dromedary seven hours; nearly due east.

“ The Red Sea trade of Sueis is in a great measure correlative to that of Geddeh; the communication between Sueis and the chief markets in the sea, such as Hodeideh and Loheia on the Arabian coast, and Masawa and Suakin on the African, being through Geddeh. Boats sometimes make trips from Suakin to Sueis, and also between Yanb’u and Wuj and Sueis, but Yanb’u is in closer relation with Geddeh than with Sueis. The ports with which Sueis communicates regularly, are Moweileh, Tùr, and Koseir.”

The Vessels employed in the Red Sea Trade are described as follows:—

“ The class of Vessels (*sambùk*, *pl. sanabík*) used in this trade vary in burden from 250 to 1,500 ardebs, that is, *from about 30 to 180 tons*. Their build, of which the origin must date back with the rest of things of the Red Sea, is very sharp forward, ‘with hollow entrance lines’ (about which so much discussion has been raised within the last few years in America and England), a clear run and upright stern. The even keel of these vessels is about three-fourths of their extreme length above, the remaining fourth being devoted to the entrance slope of the keel. The section of greatest beam is through the middle of the even keel, which is also the place for the mast, and the breadth of that section one-third of the length of the even keel. The outer, and only planking, is of teak, from Malabar. The vessels are rigged with fore and aft lateen sails, or, as such sails might be more properly called, Phœnician, Indian, or Arabian, or by other designation, indicating their having been used before the days of Latium. They are manned, in great part, with slaves. They sail well before the wind, but want flotation forwards, which renders them dangerous in a heavy sea. The masters (called, in the singular, *Reis* and *Nakhuda*) of these vessels are generally intelligent

and trustworthy. Their mode of navigating is to hug the shore, and anchor in shelter at nights: under this cramped system of navigation, many vessels are lost annually from want of sea room to leeward of the wind, which drives them to inevitable destruction on the coral reefs lining the shores of the sea.

"It is from the masters just described that the Red Sea pilots are obtained. These pilots, who know the sea very well, have been described as useless, because those who engage them do not know how to use them. It usually happens that nobody on board a European ship in the Red Sea can speak Arabic, which is the pilot's language, nor the pilot speak the language of the ship, and that, if the latter ventures to interfere in the navigation of the ship, under a sense of the responsibility of his supposed office, he is cut short in sea phrases which need not be cited. As well might Europeans complain that all Arab labour which does not come up to their European standard of excellence, is useless. Yet one can get a good dinner, with a little management, out of an Arab cook; and Arabs have made a very fair railway, under European management, through Egypt. These much-abused Red Sea Pilots can give a great deal of useful information, if allowed to do so in their own way, and if captains receiving it are able to appreciate it.

"The time of passage between Sueis and Geddeh varies according to the season and direction of the winds. Thus, during the period of northerly winds, the boats run down from Sueis to Geddeh in from *eight to fifteen days*; whereas to return against the same winds, they take as much as *sixty days*, and seldom less than *thirty days*. With the southerly winds the difficulty is reversed, and then boats make the passage quickly towards Sueis, and are delayed in going towards Geddeh.

"The *Freights* by the boats are moderate, the usual charges being from 8 to 10 piastres, equivalent to from 13*d.* to 16*d.* sterling, per package weighing from 200 to 350 lbs.; 18 piastres, or 2*s.* 5*d.* per bale of about 350 lbs. weight of Manchester manufactures; and from one-sixth to a quarter per cent. for specie, which is given unreservedly, in sealed bags, into the charge of the reises of the boats, by whom such confidence is rarely abused. Passengers pay from 2 to 5 dollars between Sueis and Geddeh, and find their own provisions. In the absence of a system of insurance, the merchants distribute their goods or specie among several boats, so as to guard against a whole consignment going at once, in the case of wreck, to the bottom."

The following statement is given as regards the magnitude of the Trade at Suez and Geddeh:—

"The chief circumstance that calls for explanation is, that the *Local Trade* of Sueis with the Red Sea has been suffering from the date of the outbreak at Geddeh, in June, 1858, up to the present time, from a feeling of mistrust left in people's minds by the occurrence of such a catastrophe, and of uncertainty as to its ultimate consequences. The author has had this statement repeatedly made to him by merchants connected with Geddeh; and its confirmation,



he thinks, is deducible from the relative proportion of imports and exports shown in the tables.

“ Thus the total value of *Exports from Sueis to Geddeh* (for the other ports may be taken as subordinate to Geddeh in the account), has been, for the first six months of the year 1859, 369,160*l.*, and of the *Imports* into Sueis from Geddeh, for the same period, 150,785*l.*, leaving a difference in value between the two amounts of 218,375*l.* against Geddeh. It, therefore, follows that in respect of the half year's trade, Geddeh became debtor to Sueis (that is, to Sueis and Cairo), for 218,375*l.* Allowing some portion of this sum to have been due to Geddeh on account of trade conducted before the commencement of the half year, and a further portion to have been liquidated by goods despatched from Geddeh after the conclusion of the half year, the author's inquiries still lead him to think that a balance, which he estimates at 150,000*l.*, remained against Geddeh. It is, however, within the knowledge of every merchant engaged in the Sueis and Geddeh trade, that before the outbreak, the money balance was always the other way, and that, quite independently of Government remittances and of the trade in specie, to be hereafter mentioned, about 1,500,000 dollars, equivalent to, say, 300,000*l.*, was actually transmitted in coin from Cairo and Sueis to Geddeh. Part of this sum would have been met by counter remittances of an incidental character in specie from Geddeh to Sueis, which, however, it is supposed, did not exceed in the aggregate 50,000*l.* a-year. These sums can only be gathered from opinion in consequence of its never having been the custom to register specie at the Red Sea Custom Houses. Deducting the 50,000*l.* last mentioned, from the 300,000*l.* annually remitted, we have a balance which used to exist against Sueis and Cairo, of 250,000*l.* a-year. Had the trade remained in its former state of activity, this balance would still exist, inasmuch as the numbers and wants of the people about the Red Sea have not increased, and the demands in Sueis and Cairo for Red Sea produce could only have been satisfied by sending the balance of payment as before in money.

“ Hence the half of this last mentioned balance, or 125,000*l.* added to the precedingly mentioned 150,000*l.*, which together make 275,000*l.*, affords an approximative measure of the extent to which the trade between Sueis and Geddeh has suffered on account of the outbreak during the first six months of this year; and it is believed that the whole deficit in value of the trade during the year and a half which has now elapsed since the outbreak, has not been less than three times 275,000*l.*, or about 825,000*l.*, the profits on which, to the various traders engaged, would probably not have been less than 200,000*l.*

“ In short, the tables seem to indicate that the trade, in the uncertainty of affairs following the outbreak, has been nearly reduced to supplying the inhabitants dependant on the markets of the sea with bare necessities in food, clothing, and metals, for which they have only been enabled to afford articles in very inadequate quantities in return, and been obliged to pay the balance in cash.”



The effect upon the Trade of the large number of Pilgrims to Mecca, is referred to in the next extract:—

“The activity of the Geddeh market for four or five months in the year is much influenced by the number of *Pilgrims* resorting to Mekkeh. Their number varies from 40,000 to 60,000 a-year under ordinary circumstances, and sometimes even exceeds the latter number. The period of time allotted for the residence at Mekkeh is from the 27th of the Mohamedan month of Zu-l-Huggeh to the end of the succeeding month of Moharem. This period in the Christian year 1858, fell between *the 8th of August and the 10th of September*, or began about two months after the outbreak, and, in the present year, 1859, between the 28th of July and the 30th August. A large number of pilgrims, however, from over sea, arrive at Geddeh six months earlier than Moharem, in order that they may spend the month of fast, Ramadan, and the three months preceding, in the holy places. All the Pilgrims who can afford to trade, avail themselves of the opportunity which the pilgrimage offers for that purpose, and Ramadan, with its thirty days of fasting, but thirty nights of revelry, is proverbially a brisk month for business at Mekkeh and Geddeh. The sums which the pilgrims put into circulation for their maintenance and through their trade, while in the Hegaz, varies very considerably in the case of each person. Some subsist upon charity, while others may move or simply spend, if above trading, as much as 5,000*l.* All are made to pay dear for the accommodation and necessities they require, notwithstanding the holiness of their ostensible mission. The increase of trade due to the presence of the pilgrims cannot, it is presumed, be less, on an average, than 25*l.* a-head, which for 40,000 pilgrims, would make the annual value of the trade created by their presence 1,000,000*l.* This source of trade is of course under the relations subsisting between Geddeh and Sueis, not without its beneficial effect on the commerce of the latter port. The pilgrimage of 1858 was much interfered with by the outbreak, and owing to after apprehension of political consequences, that of 1859, it is affirmed, was reduced by one-half in numbers, and attended with a contracted trade and expenditure on the part of the pilgrims actually present. The reduced number of pilgrims is borne out by the number who passed through Sueis this year, as shown in Table III. Had there been no disturbing cause in operation, the number of passengers shipped from Sueis in the first half of the year might have been expected to reach 15,000. Here then we have had a further set of circumstances resulting from the outbreak which may be taken to account, so far as they go, for the diminution of the trade between Sueis and Geddeh for the past year and a half.”

The following passage relates to the Trade in Specie:—

“The *trade in Specie* between Sueis and Cairo and Geddeh, is, in a joint degree, consequent upon the merchants not using Bills of Exchange for adjusting their intercommercial transactions; upon the distribution of Gold coin at Geddeh and Mekkeh by the pilgrims;

upon the remittances in gold on account of the Sublime Porte for the use of the Government of the Hegaz and Holy Places; and upon the predilection manifested by the people of Arabia and of the Abyssinian provinces for *Silver dollars*. Where there are no foreign bills, there can be no question of foreign exchanges; and the relative value of gold and silver at Geddeh are determined by the relative quantities of coin of either metal at hand on the spot. Silver being, as mentioned, in most request for local circulation, the gold is usually cheap, and is re-exported as an article of trade to serve the purposes of a new set of pilgrims, or of new remittances by the Porte, or to be returned in goods from India, or in silver from Sueis. *The price of Gold in silver at Geddeh varies as much as 12 per cent.* In the spring of 1858, the exchange was one sovereign for  $4\frac{1}{4}$  dollars, and towards the end of the same year for  $4\frac{3}{4}$  dollars, being, at the latter rate one-eighth of a dollar, or nearly 3 per cent. under the value of the same coin, at the same time, at Cairo. The profits on the trade in specie, are said to be from 2 to 10 per cent. Of course, this profit accrues to those who have opportunities of collecting Gold at Geddeh and of exporting it, out of the pockets of those who have no other means of getting money there than carrying it thither."

The defective arrangements as regards Currency, of course fall heavily on the Turkish Government, as appears by the following passage:—

"The greatest sufferer by this primitive state of things in its territory is, as usual, the Government of the Sublime Porte, which may find a very fair measure, in Geddeh, of the sacrifices its neglect of the financial interest of the Empire entails on its Revenue. The Porte formerly remitted from Constantinople to Geddeh, for defraying the balance of expenses of its government of the Hegaz, about 123,000*l.* a-year. Since the outbreak, which has occasioned the necessity of additional troops and expenditure, the annual remittance to Geddeh, it is understood, has increased to 197,000*l.* a-year. This sum, with  $1\frac{1}{2}$  per cent., commission, is paid by the Government at Constantinople, in instalments, to a contractor, on his producing the monthly receipts of the Hegaz Treasurer. The contractor pays the Turkish gold lira into the Hegaz treasury for  $127\frac{1}{2}$  piastres, but receives it, or its equivalent, in silver, at Constantinople, for  $112\frac{1}{2}$  piastres, by which arrangement the Porte, in effect, pays  $13\frac{1}{8}$  per cent. in addition to the  $1\frac{1}{2}$  per cent. commission, or in all,  $14\frac{2}{3}$  per cent., amounting to 28,893*l.* for sending 197,000*l.* from Constantinople to Geddeh. As the repayments are supposed to be made to the contractor at Constantinople about four times a-year he does not require to use a capital exceeding 50,000*l.* for effecting the years' remittance, and will therefore net for himself and friends an annual profit from the Government of—allowing liberally for contractor's expenses—say, 25,000*l.*, out of this particular remittance: but that is not all, since delay in payment at Constantinople affords the contractor a good opportunity of getting rid of rice and other things in kind, in lieu of coin, for the use of the local government at Geddeh. The whole of the coin thus remitted to Geddeh passes



through Sueis, and might be made available at its destination at an extreme annual cost of 3,000*l.* instead of 28,893*l.*”

We have in the next extract some curious facts illustrative of the practice of the effects of Hoarding Gold and Silver.

“ We have dwelt upon *Silver Coin* finding its way through Sueis to Geddeh, in the ordinary course of the Hegaz trade, at the rate of 1,250,000 dollars a-year, but said nothing of its *leaving* the Hegaz, Yemen, or Abyssinia again. The reader may be curious to know what becomes of it. A portion of it supplies the circulation of those parts. All accumulations, after fulfilling that purpose, are *Hoarded* by being buried in the earth, or closed up in walls. This practice prevails more particularly in Yemen, where every one, as soon as he has money to spare, establishes for himself a secret treasury, which he works out at night with his own hands, and reveals to no one until the approach of death warns him that the secret may be communicated to his worldly successor. It sometimes happens that death does not leave time for this important communication, and that treasures are lost to the friends of the deceased possessor, and found, in the course of “fate and destiny,” by strangers. The *great absorption* which *Hoarding* occasions may easily be conceived if we suppose a population giving 100,000 heads of families resorting to the practice and putting by 200 dollars a-piece, which would at once account for 20,000,000 of dead dollars. Many, it is true, will not possess 200 dollars; but, on the other hand, there are secret hoards of 3 and 400,000 dollars, the property of a single individual.

“ The author would here pause for a moment to suggest whether there may not be in the preceding paragraphs something worth the attention of the Joint Stock Banks established in the Ottoman dominions? The great expense now attending remittances to the Red Sea, which are mostly managed through Geddeh; the stocks of coin capable of being drawn out; and the current opportunities for trade advances, would seem to indicate a practicable field for banking operations.”

The following passages give a summary of the extent and character of the Exports, Imports, and Shipping, and point out the countries most largely concerned.

“ It is difficult to allot the portions of the Wool Trade recorded in the tables to the respective nationalities for account of which they are carried on.

“ The inquiries made by the author with this object tended to show that directly or indirectly *British interests* here, as in all the trade of the East, are the largest concerned. A single reference to the tables will justify this inference. *British Cotton Manufactures* exported from Sueis in the six months figure for 31½ of the 32 millions of Piastres representing that branch of trade, or for about *three-fifths* in value of the whole of the exports. The other articles which bear a British stamp are; *Cotton-twist* for 216,000 piastres, about half the *Woollen* cloth for 295,000 piastres; the *metals*,



excepting the tinned ware, for 1,860,000 piastres; half the *earthenware* for 142,000 piastres; and the machinery, which was for electric telegraph purposes, for 1,000,000 piastres; thus making for the British share in the *Export trade of Sueis* 35 millions out of a total of  $54\frac{1}{2}$  millions of piastres!

“The Power interested in the next degree in this trade is the *Sublime Porte*, which is represented by a long list of miscellaneous articles; among them figure the cotton and silk fabrics for  $6\frac{1}{2}$  millions; cereals, the produce of Egypt, for 5 millions of piastres, which include no part of the contributions in kind by the Egyptian Government for the support of the Holy Places; soap, from Palestine and Crete, for 544,000 piastres; oils, from the Turkish Islands and Egypt, for 450,000 piastres; dried fruits and olives for 112,000 piastres; seeds and herbs for 300,000 piastres; tobacco, from Syria and other Turkish provinces, for 456,000 piastres; with other items, which it were tedious to enumerate, for about  $2\frac{1}{4}$  millions; making, for articles of *Turkish origin*, a total of about  $15\frac{1}{2}$  millions of piastres of *Exports*. The remaining  $3\frac{1}{2}$  millions of exports may be divided between Austria, France, Italy and Morocco. As Italian productions we have sulphur and red coral together for 878,000 piastres, and from Venice the well-known glass beads for 125,000 piastres. Articles of United States origin, which I would fain have been able to cite, do not yet appear as exports from this end of the Red Sea. Besides the interests concerned in respect of the origin of the articles here enumerated, there are involved the other interests of the traders between Sueis and Geddeh, and of the Shipping in which the goods are carried.

“The distribution of the Shipping appears in the tables. The trading interests at Cairo and Sueis include a large proportion of Ottoman, then British, French, Greek, Belgian. After the Ottoman Mahommedan subjects, the Greeks, true to their history of 2,500 years, and to their part in this particular commerce, from the time of the Ptolemies, are at this day also the most active agents in conducting it.

“Of the *Articles Imported* into Sueis, specified in the tables, *Turkish territory* may be said to produce bees-wax, 344,000 p.; coffee, 11,800,000 p.; fibre, for sewing sacks, 29,000 p.; doom nuts, 7,000 p.; doom fibre (*lif*), 38,700 p.; gum arabic, 206,000 p.; leathern water bottles, 29,400 p.; mother-of-pearl shells, 637,400 p.; rhinoceros horns, 14,300 p.; sack (from yemen), 360,000 p.; raw hides, 510,000 p.; fish skins, 5,000 p.; tortoiseshell, 344,000 p.; tamarind paste, henna and senna, 236,009 p.; and, say one-half, of the item of miscellaneous, 28,000 p.; making altogether for Imported produce of Turkish origin, 14,934,000 piastres.

“The *British* element, as regards place of origin, takes the next rank, and comprises, China preserves (from Hong-Kong and Singapore), 55,000 p.; cotton and mixed goods from India, 1,071,000 p.; Chinese crockeryware, 18,000 p.; turmeric (India), 178,000 p.; essential oils (ditto), 90,000 p.; pepper (ditto), 844,000 p.; rice (ditto), 5,000 p.; cashmere shawls (ditto), 21,000 p.; spices (ditto, and Ceylon), 661,000 p.; sugar, 8,000 p.; tanned skins (Surat), 8,500 p.; and, say one-third, of the item of miscellaneous, 19,000 p.;

which give a total value of imports of British origin into Sueis, of 4,198,000 p.

"*Persia* takes the next place, and sends assafoetida, 17,000 p.; almonds, 53,000 p.; carpets, 36,000 p.; tobacco, 1,126,000 p.; and some further items which make up Persian produce to about 1,500,000 p. The coast of Africa, outside the straits, yields incense 1,169,000 p.; myrrh, 17,000 p.; and say, 50,000 p. of produce which cannot be discriminated, which gives a total for the African produce, of 1,236,000 p. The several totals arrived at account for 21,867,000 p. out of the whole 22,316,120 p. of imports contained in Table II. Of the balance, Banca tin absorbs 268,000 p., which only leaves 200,000 p. undetermined."

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MEMORANDUM on the POPULATION STATISTICS of SPAIN in 1858 and 1859; in continuation of the "REVIEW of the STATISTICS of "SPAIN," read to the Statistical Society in February, 1860. By MR. FREDERICK HENDRIKS.

UNDER the head of "*Statistics of Population, 1594 to 1857*" (*vide Journal*, pp. 151—162), various tabular statements were given, containing various particulars of importance in the Population Statistics of Spain; but it was noticed (p. 161) that there still existed a radical defect in the returns, namely, the entire absence of any publication of the number of *Births, Deaths, and Marriages*.

The Spanish Statistical Commission has subsequently taken steps to remedy this, and Mr. Hendriks having recently been furnished, through the attention of the Count de Ripalda, with the proof sheets of the new volume of the "*Anuario Estadístico de España*," in which are given details on these subjects as affecting the movement of the population,—(details acknowledged to be the first of their kind ever compiled in Spain),—is desirous of communicating the results to the Society in the present memorandum.

The details in question, as might indeed be expected on the occasion of their first collection, can only be taken as approximations, and are not sufficiently elaborated or corrected to serve as the basis of construction of a life table, showing the expectation of life or curve of mortality at each age. Statisticians will easily perceive that errors, more or less considerable, are to be found in the subdivisions of deaths according to ages. The same objection does not, however, so obviously attach to the aggregate or total numbers of each return, and it is not unreasonable to assume that they constitute a relatively speaking accurate approximative representation of the general value of life in Spain, for comparison with similar returns for other countries. Information of this nature is particularly required from countries in Southern latitudes like Spain, in order that the points of difference between such countries and those situated in Central and Northern Europe may be compared. It is much to be desired that Don Juan B. Trupita and the other Members of the Section of the Spanish Statistical Commission who are charged with the editorship of the "*Anuario*," will persevere in the good beginning, of which they have laid the foundation, for the ascertainment and record of the *Vital Statistics* of their country.

It is now proposed to give a brief and condensed *résumé* of the returns that can be generalized for each of the two years, 1858 and 1859, (1) as regards the *whole kingdom of Spain*, and (2) as affecting the *City of Madrid* separately.



It should be premised, as necessary to be borne in recollection throughout the following remarks, that the ascertained *population of Spain* in 1857 was 15,464,340 souls,\* and of Madrid, 281,170. These numbers are throughout the basis of the calculations.

(A.)—BAPTISMS, DEATHS, and MARRIAGES, 1858 and 1859.

DETAIL.	Whole of Spain.		Madrid.	
	Year 1858.	Year 1859.	Year 1858.	Year 1859.
I.—BAPTISMS .....	546,158	556,323	10,161	10,817
Proportion to Inhabitants.....	1 in 28	1 in 28	1 in 28	1 in 26
„ (births) in <i>England</i> } and <i>Wales</i> , in same years..... }	1 „ 30	1 „ 29	—	—
II.—DEATHS .....	433,931	449,037	9,845	10,196
Proportion to Inhabitants.....	1 in 36	1 in 34	1 in 29	1 in 28
„ <i>England and Wales</i>	1 „ 43	1 „ 45	—	—
III.—MARRIAGES .....	113,443	112,903	2,408	2,522
Proportion to Inhabitants.....	1 in 136	1 in 137	1 in 117	1 in 111
„ <i>England and Wales</i>	1 „ 126	1 „ 118	—	—

(B.)—BAPTISMS, distinguishing the SEXES, and the LEGITIMATE from the ILLEGITIMATE Children.—Years 1858 and 1859.

DETAILS.	Whole of Spain.		Madrid.	
	Year 1858.	Year 1859.	Year 1858.	Year 1859.
I.—LEGITIMATE.				
Males .....	266,221	271,962	4,068	4,353
Females .....	249,897	253,281	3,747	4,107
Both sexes.....	516,118	525,243	7,815	8,460
Proportion to inhabitants .....	1 in 30	1 in 29	1 in 36	1 in 33
II.—ILLEGITIMATE.				
Males .....	15,337	15,793	1,247	1,174
Females .....	14,703	15,287	1,099	1,183
Both sexes.....	30,040	31,080	2,346	2,357
Proportion to inhabitants .....	1 in 515	1 in 498	1 in 120	1 in 119
Total children .....	546,158	556,323	10,161	10,817
Proportion to inhabitants.....	1 in 28	1 in 28	1 in 28	1 in 26

\* *Statistical Journal*, p. 155.

(C.)—MARRIAGES, *distinguishing the previous Condition of the Parties.*—  
Years 1858 and 1859.

DETAILS.	Whole of Spain.		Madrid.	
	Year 1858.	Year 1859.	Year 1858.	Year 1859.
I.—SINGLE MEN to				
Single Women .....	85,984	86,518	1,898	2,013
Widows .....	6,375	5,866	145	149
	92,359	92,384	2,043	2,162
II.—WIDOWERS to				
Single Women .....	14,103	13,714	279	284
Widows .....	6,981	6,805	86	76
	21,084	20,519	365	360
TOTAL MARRIAGES .....	113,443	112,903	2,408	2,522
Proportion to Population .....	1 in 136	1 in 137	1 in 117	1 in 111

(D.)—DEATHS, *distinguishing the Conjugal Condition.*—  
Years 1858 and 1859.

DETAILS.	Whole of Spain.		Madrid.	
	Year 1858.	Year 1859.	Year 1858.	Year 1859.
I.—SINGLE Males .....	145,655	157,634	3,680	3,809
„ Females .....	129,380	136,939	2,815	3,151
„ of both sexes .....	275,035	294,573	6,495	6,960
II.—MARRIED Males .....	52,033	50,771	1,182	1,218
„ Females .....	45,566	44,620	839	746
„ of both sexes .....	97,599	95,391	2,021	1,964
III.—WIDOWERS .....	25,943	24,454	510	467
WIDOWS .....	35,354	34,619	819	805
WIDOWED of both sexes ..	61,297	59,073	1,329	1,272
GENERAL TOTAL—				
MALES .....	223,631	232,859	5,372	5,494
FEMALES .....	210,300	216,178	4,473	4,702
Both sexes .....	433,931	449,037	9,845	10,196
Proportion to Population..	1 in 36	1 in 34	1 in 29	1 in 28

(E.)—DEATHS, *distinguishing the Ages.*—Years 1858 and 1859.

DETAILS.	Whole of Spain.		In the Chief Towns (including Madrid) of all the Provinces.	
	Year 1858	Year 1859.	Year 1858.	Year 1859.
Aged under 1 year .....	95,480	106,866	12,188	13,282
Aged from 1 to 5 years .....	106,322	116,455	13,231	15,041
" 5 " 10 " .....	24,160	21,179	3,518	2,703
" 10 " 15 " .....	11,473	10,971	1,359	1,267
" 15 " 20 " .....	11,113	10,561	1,690	1,660
" 20 " 25 " .....	13,014	12,377	2,520	2,373
" 25 " 30 " .....	12,673	11,996	2,493	2,285
" 30 " 35 " .....	12,788	12,760	2,170	2,204
" 35 " 40 " .....	13,102	12,903	2,298	2,285
" 40 " 45 " .....	13,395	13,363	1,996	2,110
" 45 " 50 " .....	12,886	12,191	1,998	1,890
" 50 " 55 " .....	13,941	13,885	1,908	1,873
" 55 " 60 " .....	16,590	16,521	2,288	2,156
" 60 " 65 " .....	19,450	20,240	2,285	2,334
" 65 " 70 " .....	17,174	16,829	2,148	2,029
" 70 " 75 " .....	15,395	15,823	1,847	1,713
" 75 " 80 " .....	11,469	10,938	1,406	1,393
" 80 " 85 " .....	8,073	8,077	1,081	961
" 85 " 90 " .....	3,697	3,564	540	459
" 91 .....	550	485	56	65
" 92 .....	303	224	44	23
" 93 .....	234	149	18	28
" 94 .....	198	137	33	30
" 95 .....	168	182	27	36
" 96 .....	94	110	24	34
" 97 .....	85	46	20	12
" 98 .....	58	63	14	13
" 99 .....	38	50	8	19
" 100 and upwards ....	80	92	24	37
	433,931	449,037	59,232	60,315



*On METHODS of INVESTIGATION as regards STATISTICS of PRICES,  
and of WAGES in the PRINCIPAL TRADES.*

*Being the PROGRAMME prepared by request for the SECTION (IX)  
Commercial Statistics, of the Fourth Session (1860), of the INTER-  
NATIONAL STATISTICAL CONGRESS held in LONDON in JULY, 1860.*

*By WILLIAM NEWMARCH, one of the Honorary Secretaries of the  
Statistical Society, and Editor of its Journal.*

*Note.*—This Programme was adopted by the Fourth Section of the General Congress with a few verbal corrections merely. Those verbal corrections have been embodied in the present reprint.

I.

THE collection of comprehensive and accurate Statistics of Prices and Wages may be considered under two aspects, and with a view to two important purposes, namely,—

First, as a means of tracing Historically the relative exchangeable value of commodities as compared with each other, and with gold and silver (or money); and also as a means of tracing historically the money rate of wages, and the value in exchange of such money rate.

And secondly, as a means of ascertaining, during more recent periods, and during the present time, the Fluctuations of Prices, and the course of Wages in any particular country; and, by comparison with the same class of facts in other countries, the relative exchangeable value of commodities and labour in different parts of the world.

These two branches of inquiry may be justly considered as among the most interesting and important which can engage the attention of scientific inquirers; and they are inquiries which can only be successfully and profitably cultivated by the aid of the most refined and careful methods at the command of the statistician.

II.

To refer, in the first place, to the Historical part of the question.

Carried beyond a certain point, researches concerning Prices resolve themselves into pure subjects of archæology, and belong, therefore, to a branch of learning with which we are not here brought in contact. For example, we may properly leave to the antiquary investigations relative to Prices and Wages in Roman or Medieval Europe. But recent events have imparted a real and practical interest to all investigations of this class, which take the

fifteenth century for a starting point. If we would rightly interpret the profound changes connected with the Discoveries since 1848, of Gold and Silver and Cinnabar in California, Australia, and British Columbia, it is necessary that we should have before us, in the most ample and accurate form, facts relating to the fifteenth and two succeeding centuries.

If between the year 1400 and the year 1790,—selecting the latter year as the commencement of the wars arising out of the French Revolution,—we draw two lines, the one about the dates 1570-1600, and the other about the dates 1700-1720, we shall find, as a general rule, in Central and Western Europe, that as regards the—

(A.) *First Division* (say 1400-1570) the materials available for trustworthy statistical purposes amount to little more than the means of determining at dates, more or less irregular, and in places more or less diverse, the prices of one or two kinds of grain, and the wages of the commoner kinds of unskilled labour.

(B.) As regards the *Second Division* (say 1570-1700) we shall find more abundant and more accurate data of the same character,—data, indeed, so abundant and conclusive as to justify highly positive inferences.

(C.) As concerns the *Third Division* (say 1700-1790), we shall find the means of easily prolonging the lines of evidence already constructed as regards the first and second divisions; and we shall also find that, in a large measure, we can institute close and trustworthy comparisons between the facts which existed then, and the analogous facts which we find to exist now.

I would suggest, therefore, that the investigation of the facts relating to Prices and Wages, may with advantage be divided into—

- (1.) *A Historical Period*, extending from the early part of the fifteenth century (say the year 1400) to the commencement of the Great War at the close (say the year 1790) of the eighteenth century, following, as regards this historical period, the three subsidiary divisions (A), (B), (C), I have just pointed out; and,
- (2.) *A Contemporaneous Period*, commencing with the year 1790, and extending to the present time.

### III.

Down to the year 1700 it is probable that there exists only the means of determining, with reasonable or scientific accuracy, the course of Prices of no more than the higher kinds of grain (wheat and barley, for example), and the rate of Wages of the commoner kinds of agricultural labour.

But we must not overlook the important consideration, that if these two elements could be once satisfactorily ascertained by the



application of sound science to a larger body of data, we should be put in possession of a truth so broad and solid, that it would become the corner-stone of many a valuable superstructure.

We should have accomplished at least one-half of the task necessary to give us a clear view of the economical changes arising chiefly out of alterations in the supply of the Precious Metals, which occurred in Europe during the two centuries subsequent to the geographical epoch of 1492.

The accomplishment of the other half would be a less difficult enterprise, for it would impose mainly the necessity of dealing with the more limited field of inquiry connected with the magnitude of the Influx, year by year, of the supplies of gold and silver from the New World.

In seeking for statistical evidence of the prices of Grain and the Wages of common agricultural labour during the period in question (1400-1700), the greatest difficulty is occasioned by the extremely diverse and conflicting character of the recorded observations. It will be necessary, therefore, to attend constantly and with great care to at least the following points:—

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| <p>(a.) The credibility of the source and form of the evidence brought forward.</p> <p>(b.) Discrimination between the record of ordinary prices and the entry of <i>notable instances</i> of high or low prices.</p> <p>(c.) Discrimination between the prices of different periods of the year, as summer, winter, harvest.</p> <p>(d.) Discrimination, as far as possible, of the <i>quality</i> of the grain.</p> <p>(e.) Careful attention to the variations in the local and other weights and measures employed.</p> <p>(f.) Careful attention to the influence of the frequent, arbitrary, and ignorant interferences of the State with the coinage and the supply of coin, with the freedom of buying and selling grain, and with the tolls and regulations enforced in public markets.</p> <p>(g.) Consideration of any special purpose for which the record was established or kept; as, for example, for local assize or inspection of bread; for determining tithes, corn rents, or fines, &amp;c.</p> <p>(h.) Consideration of the <i>quantities</i> sold, and whether in open market or by private bargain.</p> <p>(i.) The distance of the locality from</p> | <p>any important and populous district or town.</p> <p>(j.) In the case of wages, the prevalence of any particular custom or privilege, either for or against the labourer, and the extent of any customary or other addition of indirect benefits over and beyond the mere money payment made to him.</p> <p>(k.) The number of hours per day in winter and summer during which the labourer was required to work.</p> <p>(l.) The continuance of the hiring throughout the whole or only through a part of the year.</p> <p>(m.) Especial reference to the occurrence and the effect of years of deficient harvest and winters of great severity, and generally to seasons marked by unusual departures from the ordinary course of the climate.</p> <p>(n.) The prevalence of war or pestilence.</p> <p>(o.) The existence or non-existence of freedom and facilities as regards intercourse with other countries, or with other parts of the same country. In France, for example, such freedom and facilities were exceedingly imperfect.</p> <p>(p.) The pressure or influence of any particular tax, toll, or assessment, whether local or general.</p> |
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## IV.

Still, speaking of the Historical Period (1400-1700), it is (as I have said) likely that it may not be possible to collect a continuous and authentic body of data sufficient to establish decisively more than the two important elements (Category I) of the

(1.) Prices of leading kinds of grain.

(2.) Wages of common agricultural labour.

But it is desirable that, as far as practicable, facts should be sought for relating to the eight following further heads of inquiry, viz. (Category II).

(3.) Price of land of different kinds.\*

(4.) Rent of land and *interest of money* lent on ample mortgage.†

(5.) Rent of houses and cottages.

(6.) Prices of horses, cattle, sheep, poultry.

(7.) Prices of butchers' meat and other provisions.

(8.) Prices of clothes and furniture.

(9.) Wages of artizan and skilled labour.

(10.) Cost and time of conveyance from place to place or over given distances.

The diversity of circumstances affecting the money value, from time to time, of all the objects comprised under these last eight heads, is so great that it would be futile to attempt any classification of them. No more can be said, than that any observation under any of these eight heads (Category II), can be of no scientific use unless it attends carefully to time, place, quantity, quality, and local specialties.

The advantage of the two inquiries in Category (I) is, that they represent the more simple units through long periods of years. The *price of the leading kinds of grain* represents the money value of a description of raw produce, which in itself changes but slowly as regards quality, and the production of which, through considerable intervals of time, implies the application of the same amount and kind of labour, skill, and capital.

In like manner the *wages of the commoner kinds of agricultural labour* represent, for long periods, the money price of almost the

\* As regards the price and rent of land, it is especially necessary to ascertain that the terms implying *quantity* always represent the same number of square yards, &c., even in the same locality. For example, in England, the old land measure called an "*oxgang*" represents widely different quantities of superficial area at different periods in the same *parish*, and still more in different parts of the same *county*, at the same time.

† In quoting the *rent* of land, it is obvious that some indication must be given of the *rate of interest* at the same time prevailing on good mortgage security. The *rent* of land is the expression of two elements (1) fertility of the soil, and (2) the rate of interest yielded by safe mortgages.

same kind and amount of services rendered by labourers seeking employment under the same conditions.

The two inquiries in Category (I) may be called therefore *Fundamental and Scientific*, while the larger number of inquiries in Category (II) can never be more than *Illustrative and Conditional*.

It will be sufficient to say, with reference to the historical division (C), 1700-1790, that the principles laid down for the divisions (A) and (B) will be strictly applicable; but the greater abundance of materials will admit of the adoption of those principles in a more expansive and systematic manner.

A most useful preliminary labour in connection with the historical investigation of prices and wages, would be the compilation in each country of a short *catalogue raisonnée* of documents, records, and books known to contain useful and authentic materials; and also the institution of independent researches for original records. It is certain that numerous records of prices of great extent and value exist in the archives of many colleges, religious houses, hospitals, ancient corporations, and especially in connection with many ancient markets. In England, the two most complete and valuable of our series of historical prices of grain are the prices of the Eton Market, collected for Eton College, and first compiled by Bishop Fleetwood\* in 1720, and the prices of grain at Oxford Market, compiled about thirty years ago by the Rev. Mr. Lloyd.† One of the most recent and most valuable contributions to our knowledge, of the actual economy of farming labour in England in the seventeenth century, is the publication,‡ by the Surtees Society, of the Farming Book of Henry Best, written in the year 1641.

In France the extensive and valuable series of historical prices of grain, published by Dupré de St. Maur§ in 1746, were obtained from the registers of the Chapter of Notre Dame as Seigneurs,

\* "Chronicon Preciosum; or, an Account of English Gold and Silver Money, "the Price of Corn and other Commodities, and of Stipends, Salaries, Wages, "Jointures, Portions, Day Labour, &c., in England, for 600 Years last past." By Bishop Fleetwood, 12mo., London, 1745, pp. 150, and Appendix (on Coins), pp. 50.

† "Prices of Corn in Oxford in the beginning of the Fourteenth Century, and "also from the Year 1583 to the Present Time," by Rev. W. J. Lloyd, M.A., Student of Christ Church, Oxford, 1830, pp. 100.

‡ "Rural Economy in Yorkshire in 1641, being the Farming and Account "Book of Henry Best, of Elmswell, in the East Riding of the County of York" (edited by the Rev. C. B. Robinson), Surtees Society Volume for 1857. London, 8vo, Whittaker and Co., pp. 188. The documents here reprinted with so much learning and care by Mr. Robinson, are especially valuable, inasmuch as the records of Prices are given for a date (1641), prior to which the influx of the American gold is generally assumed to have produced its full effects.

§ "Essai sur les Monnaies ou Reflexions sur le Rapport entre l'Argent et les "Denrées," Paris, 4to., 1746, pp. 188. The name of Dupré de St. Maur does not appear on the title page.



of Rosoy-en-Brie. And quite recently, M. Levasseur\* has brought to light and published, in his lucid and learned work on the Gold Question, valuable tables of the prices of grain in Paris in the sixteenth century, as preserved in the records of certain ancient central markets in that metropolis.

## V.

We may now address ourselves to the consideration of what we have called the CONTEMPORANEOUS PERIOD, commencing with the year 1790, and extending down to the present time.

There seem to be two principal groups of objects, to which the investigation of this contemporaneous and present period may be directed, viz.:—

## First Group:

- (a.) To the establishment of an accurate *historical view* of the important changes which have taken place, and do take place, in the Prices of Commodities.
- (b.) And in the Wages of labour.

## Second Group:

- (c.) To the establishment of an accurate scientific view of the operation of the *Economical Principles* which affect the Prices of Commodities.
- (d.) And the Wages of labour.

## VI.

Speaking of a large area, as for example, of the Continent of Europe, and having in view an interval of time so long as the period since 1790, it is obvious that there have been, and that there are at work, certain large and general causes, which underlie all more immediate and circumscribed changes of prices and wages, viz.:—

- A. {
  - (1.) The annual supplies of gold and silver.
  - (2.) The increase of population.
  - (3.) Improvements in means of communication.
  - (4.) Progress in invention and discovery.
  - (5.) Progressive accumulation of capital or wealth.

Subject to the operation of these cardinal causes, the changes of prices, and to some extent the scale of wages, in particular centuries, will be more immediately and primarily affected by—

- B. {
  - (6.) Variations of seasons.
  - (7.) Changes in the character of commercial legislation.
  - (8.) Monetary and banking systems.
  - (9.) Regulations relating to coinage and paper circulation.
  - (10.) Occurrence of war or pestilence.
  - (11.) Prevalence of emigration or immigration.

\* "La Question de l'Or," par E. Levasseur, Docteur des Lettres, Professeur au Lycée, Imperial de St. Louis, 8vo., Paris, Guillaumin, 1858, pp. 357.



In selecting the commodities and the class of facts intended to be the specific statistical foundation for commentaries, of which the preceding may serve to indicate the nature, we must still be guided by a constant effort to discover *Units* which are the simplest and the most constant in their *component parts*, always remembering that but few units can be found wholly fundamental and scientific, while a vast number may be made available as illustrative and conditional.

Since 1790, in every European country, the Prices of Commodities for historical purposes may be reduced, as a general rule, to perhaps six or eight or less *of the largest and most important Articles*, under the heads of—

Indigenous Articles of Food.

Indigenous Articles of Raw Material.

Indigenous Animals.

Imported Articles of Food.

Imported Articles of Raw Material.

It need scarcely be said, that in every case the quotation given must be the wholesale price in open market, exempt from monopoly, free from toll, duty, or impost; and also that the peculiar and special technical description of the article must be indicated.

In like manner the quotation of Wages may, in all or most countries, be reduced to six or eight or less of the most important Manual occupations, as follows, viz.:—

Common Agricultural Labour;

Ordinary Handicraft Trades;

Ordinary Manufacturing Process;

in all cases carefully supplying the hours of work per day or week, the difference as between winter and summer, and the existence or otherwise of collateral additions to the money payment; distinguishing also children, youths, and adults, male and female.

## VII.

No record of Prices and Wages in any country, and especially in any European or American country, since 1790, can have much scientific value, unless it includes or is accompanied by statements and statistics exhibiting carefully and clearly the contemporaneous course in that country of fluctuations in the volume of the Circulating Medium of paper notes, whether issued by the State, by government banks, or by joint stock or private bankers, and scrupulous care should be taken to indicate all the occasions (if any) during which the paper became in any degree inconvertible into coin at the will of the holder, or assumed in any form the character of a forced circulation, or was not in due course of business speedily and regularly returned for payment upon the issuing banks.

It is also material to notify the alterations made from time to

time in the *denominations* of Notes, especially in the denominations of the *smaller* grades of notes.

Connected with the record of fluctuations in the amount, and changes in the character of the paper circulation of a country, there should be a contemporaneous record of changes in the Rates of Discount and Interest at the leading bank or banks in the country, and also in the general money market. There should also be a corresponding record, as far as can be ascertained, of the leading items composing the *Assets* and *Liabilities* of the leading bank or banks, as far as can be ascertained.

The quotations of the *Foreign Exchange* upon the more important places, and of the prices of *gold and silver Bullion*, and the *agio*, if any, prevailing on either, should be given.

Information also, as far as possible, should be given relative to the import and export of the Precious Metals, and to the extent of the annual Coinage.

Collateral to these branches of information may properly be added the market quotations of a few of the best known of the Public Stocks or Funds of the country, or of the stocks or funds of some neighbouring country most commonly dealt in.

Wherever it is possible to ascertain the amount and fluctuations of the Bills of Exchange in circulation, the information should be given.

By the aid of such statistics as are here suggested, it will be possible, sooner or later, in most countries, to arrive at clear and positive results as regards the relations existing between fluctuations in prices, and changes in the rate of interest, and the quantity of convertible paper circulation.

But in tracing these relations, we must not overlook the profound immediate effects produced by variations in the *Supply* of Commodities. Hence the necessity of attending closely to the variations of the seasons, especially as concerns all indigenous agricultural produce;—and, as regards exotic productions, to the variations in the annual volume of the imports and the exports.

In collecting such statistics of prices and wages since 1790, as are here in question, it will be desirable, as far as possible, to have reference to an ultimate formula of a simple and uniform character; and it is probable that the *four* dates in each calendar year, which will best suit the largest number of cases, will be the quarterly months of—

1. January.

3. July

2. April

4. October.

The quotations given should be quotations of actual transactions and facts occurring in these months, leaving the same or subsequent inquirers to construct such averages as they may consider expedient.



## VIII.

So far I have spoken only of the *First Group* of objects to which a record of contemporaneous prices, commencing with 1790, may be applied, namely, to the establishment of an accurate *historical view* of the more important changes which have taken place.

There remains the *Second Group* of objects, viz., the establishment of an accurate scientific view of the operation of the *Economical Principles* which affect the prices of commodities and the wages of labour.

If we confined our researches to the first group of objects, we should throw but a partial light on the phenomena to be investigated. Our historical view of the more important changes which have taken place in prices and wages, would enable us to trace the effect of vicissitude of seasons, of periods of war, of alterations of monetary systems, of interruption of ordinary supplies, and the like; but it would leave us unable to explain the more marked difference of prices, and especially of wages, prevailing at the same time even in neighbouring countries, or in neighbouring districts of the same country; and still less able to explain important contemporaneous points of difference in the class of facts which represent more or less completely the condition of the working people of a country.

There are certain fundamental causes of difference between nations, so large and general, that in this place it is sufficient merely to indicate them. For example, there are, as *natural* causes,—geographical situation, climate, soil, and physical aspect of the territory itself; as *historical and political* causes,—race, religion, constitution of the central power, character of the local administrations, national habits, and provincial customs.

Giving all due share to the operation of these fundamental causes, there still remain certain *Economical Conditions* constantly at work in impressing a special mark upon the class of facts with which we are here concerned.

We may, perhaps, enumerate these conditions in the following order:—

- (1.) Density of population.
- (2.) Possession and occupation of land.
- (3.) Means of internal communication.
- (4.) Freedom and extent of *internal* trade.
- (5.) Freedom and extent of *external* trade.
- (6.) Prevalence or the reverse of manufactures and mining.

Adhering to the simple Unit presented by the wages of the common kinds of Agricultural Labour, it is incumbent upon us to ascertain, by the aid of facts, the country and the time in and at



which the common labourer has been or is able to command in the most marked degree:—

- (a.) The highest and most advancing wages.
- (b.) The best and most improving shelter, food, and clothing.
- (c.) The best and most improving means of education.
- (d.) The readiest means of bettering his condition.

There are the strongest reasons in favour of all well-devised attempts for ascertaining, by actual facts, the operation of general Economical conditions in different countries. For there are several profound differences between the manner in which a law, purely physical, as, for example, gravitation, operates in precisely the *same* manner in all places; and the manner in which an economical condition, as, for example, a compulsory division of landed estates among descendants, operates even in neighbouring countries of the same continent.

The object of the statist is to investigate the complex phenomena presented by social communities, collected from the most various sources, and under the constant or the fluctuating influence of causes the most various. Already some general results have been established, which there is good reason to believe have all the properties of general laws, in a social or economical sense. But the end of all true statistics is, sooner or later, *Action*. We investigate social phenomena that we may improve human societies; but if we justly expect that conclusions, fully established by elaborate observations, and confirmed and verified by the application of the most various and the most rigid tests, shall be adopted by men actually responsible for the conduct of human affairs, we must take care not to present ourselves as discoverers or innovators until we are prepared to prove our principles by facts collected from a surface so wide, and amidst populations so different, that we may fairly claim assent, not for a local incident, but for a principle resting on the largest basis of observation.

It may be said here with great propriety, that in the investigation of complex social phenomena, the adoption of *hypotheses* or *theories* may be of the greatest value to the ultimate interests of truth. A mere compilation of facts, unguided and uninformed by any general notion or view, can be rarely of service either to the inquirer himself or to others. It is quite possible that theories may be unfounded, and hypotheses may be chimerical, but the progress of all opinions to final forms of accepted certainty, is, by means of a long ascent, rendered permanent and safe by the surrounding beacons of detected error.

## IX.

We have now seen something of the general relations of the question before us. It remains to give, as far as may be, a *practical*

*direction*, according to our present circumstances, to the views which have been laid down.

It happens that, at the present time, we are in the midst of events which give to *present records* of Prices and Wages a special historical value.

It is twelve years since the great discoveries of the Precious Metals began on the shores of the Pacific; and one of the most prominent and curious questions of our time relates to the extent and nature of the influences already produced upon the world, but more especially upon the commercial states of Europe and America by the continued influx of the New Treasure. This is a question at once scientific and practical in the highest degree. It comes home to the business and bosom of the merest plodder, and it arrests the thoughts of the most speculative philosopher.

But not merely is there the category of hard problems relating to the countries which *Receive* the new gold, but there is a category of problems, not less in difficulty or interest, relating to the countries which *Supply* it.

The conjuncture is surely momentous and special which places under our own eyes the phenomena of two vast regions—California and Australia—in many things differing in the widest and most absolute degree, but coinciding in the one remarkable and controlling circumstance, that in the space of ten years both have become populous and powerful states, and are every day becoming still more populous and powerful, by means of population and commodities suddenly attracted from other parts of the world, by the presence within them of apparently boundless supplies of the precious metals. Nor has this vast and sudden process of transfer been accomplished by any interruption of ordinary trading relations. Supply and demand, set in motion by free trade and free labour, have wrought out the entire chain of events; and herein is the great difference between the gold discoveries of our time, and the influx of treasure from the New World in the sixteenth century. *Then*, the gold and silver came to Europe, chiefly as a tribute to Spain, obtained by a vile and wicked enforcement of slave labour. *Now*, the influx of treasure is as spontaneous as the arrival of the commonest articles of trade.

It seems, therefore, to be an obvious and reasonable course that we should at once address ourselves to the fulfilment of this task, viz.:—

- (1.) The ascertainment of the effect produced on Prices and Wages by the Influx of the new treasure into the commercial states of Europe and America.
- (2.) The ascertainment of the effect produced on Prices and Wages year by year in the Gold Countries themselves, by the progressive development of their resources.



## X.

In treating of both questions, our first effort must be to construct a broad and solid *Datum Line*, fairly and accurately representing the range of Prices and Wages during some satisfactory period *prior* to the first effects of the discoveries.

In the *Gold Countries* themselves, the occurrence of the discoveries naturally prescribes the dividing *date*.

In the *Receiving Countries*, the *close of the year* 1850 is a dividing date, apparently open to few objections.

For nearly all Commodities, except grain, it is probable that a Datum Line, representing the average result of at least four quotations of wholesale prices in each of the *Ten Years* 1841-50, would, in the case of most of the important entrepôts in Europe and America, be entitled to be received as a trustworthy foundation. It would be desirable, in constructing such a datum line, to state separately the averages of the two five year periods, viz., 1841-45, and 1846-50. These separate results would admit of easy consolidation where required. The quotations should be scrupulously taken from the *same* sources:—if possible from the *same* identical record, and for precisely the *same* class and quality of articles.

These observations apply with equal force to Wages.

Commencing with the year 1851, what may be called the *Influx Prices* should be continued in close conformity to the same rules.

In the five Appendices (S, T, U, V, W), I give examples of the actual application by myself of this method to the case of this country, as represented by the wholesale markets of London and Manchester. The tables\* given were constructed in the early part of the present year (1860), and published in the *Journal of the Statistical Society of London* of March last (1860), in continuation of former researches on the same subject, of which a full account is given in the fifth and sixth volumes of the "History of Prices," published early in 1857, and bearing, in the first place, the name of Thomas Tooke. The datum lines of these Tables of Prices is the average of the *six* years 1845-50,—an average which, in this particular case, and for the special reasons given in the foot notes to the tables at p. 102, I am strongly inclined to consider sound and reliable. For particular reasons, which need not here be discussed, the quotations are given for only six dates, between January, 1851, and January, 1860.

The series of tables include the following evidence:—

\* These tables will be found at pp. 103—110 of the present volume, of the *Journal*, marked A to G, and hence they are not *repeated* in this place.



## TABLE (S.)—PRICES.

- (I.)—Colonial and Tropical Produce (Food). (Seven Articles).  
 (II.)—Wheat and Butchers' Meat. (Six Articles.)  
 (III.)—Raw Materials of Manufacture. (Eighteen Articles.)  
 (IV.)—Metals. (Six Articles.)  
 (V.)—Manufacturing (Manchester) Markets. (Four Articles.)  
 (VI.)—Collateral. Bank Note Circulation.  
 „ Rate of Discount.  
 „ Bullion Reserves of Bank of England.

## TABLE (T.)—PRICES.

Proportionate Results deduced from the actual quotations of Prices, &c., given in table.

## TABLE (U.)—SUPPLY.

Imports and Exports (quantities) of leading Articles.

## TABLE (V.)—FOREIGN EXCHANGES.

Average Annual Rates, 1841-59.

## TABLE (W.)—GRAIN.

Average Annual Prices, 1840-59.

Reference may be made here to the construction of Table (T). That table, it will be seen, is intended to reduce into an uniform and simple percentage Notation, the variations exhibited in all degrees of complexity by the actual quotations of Prices in the preceding Table (S). The principle of Table (T) is to assume the NUMBER 100 as representing the Datum Line, and to express by some percentage modification of 100 the fluctuations of the actual table. Great nicety and care is required in the conversion of the actual figures; but subject to this precaution, the principle of Table (T) seems to be well adapted to reduce complex results into a simple and comparative form.

In Table (U) also, the plan is adopted of employing the large numbers required to express quantities by omitting the 0000 figures at the *unit* end; for example, writing 5·82 for 5·820·000, or in other words expressing the quantities in millions and decimals of millions to two places (*e.g.* 5·82). A somewhat extensive period has impressed me strongly with the advantage of adopting this arrangement, wherever possible, always, of course, stating very distinctly on the face of the table that the surplus figures are eliminated. The cases are very few indeed in which it is necessary to set forth large sums with greater precision than is attainable by two places of decimals. The relief to the eye, and the economy of space for all purposes of printing, are most marked. It is, besides, not to be overlooked that the affected precision of huge cumbrous, columns of figures interfere greatly with the popular reputation of statistical inquiries.

I have said that for most Commodities, except Grain, an average for the Ten years 1841-50 would be entitled to be received as a trustworthy foundation for purposes of comparison, and that in some cases the average of even a shorter period might be entitled to equal attention.

In the case of Grain, the effect of the seasons is so powerful and sudden in affecting the Price, that a long period of years is required

to constitute a fair average; and the Congress may with advantage direct its attention to the elucidation of this interesting and important point.

Upon this part of the subject, therefore, I would conclude by urging upon the Congress the extreme importance of promoting, by all the means in their power, the immediate institution of measures for the construction, at certain leading places, for example,

Hamburg,	Bordeaux,	New York,	Philadelphia,
Paris,	Cadiz,	Boston,	New Orleans,

of Tables of Prices and Wages for the ten years prior to 1851, and for each of the years since elapsed, with the view of arriving at general conclusions as regards the effects produced by the Influx of the new treasure in what we have called the *receiving* countries.

## XI.

But contemporaneously with these inquiries, in the *Receiving* countries, it is incumbent upon us to ascertain by like methods the changes brought about in the *Producing* countries.

In Appendix (X) a statement is given of a classification adopted for this purpose, as regards Prices and Wages, in Melbourne (Australia) 1851-6, founded on the best returns available to an inquirer in London. This statement is here given, not as a guide to be adopted as a model, but as an example, to be made the basis of consideration and discussion.

There will be present at the Congress, representatives of the Australian Colonies, and it should be urged upon them to procure as speedily as possible from—

Sydney,	Melbourne,	Adelaide,
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Tables of Prices and Wages, exhibiting fully the state of fact prevailing *before* and subsequent to the occurrence of the gold discoveries in the summer of 1851.

Similar returns should also be obtained from San Francisco (California), and from Victoria (Vancouver Island).

## XII.

The purposes of this Programme may here terminate. The Writer does not presume to hope that he has succeeded in traversing, even with approximative completeness, the wide and diversified expanse of topics which lay before him; but at least he ventures to hope that the suggestions which have been made have in their support recommendations of distinctness, utility, and practical importance.

As arising out of the statements and facts contained in the preceding Programme, the following propositions are submitted to the Congress, with a view to the advancement of practical results, viz.:—



1. That by Wages be meant throughout the whole inquiry the *money payment* to the labourer for a given exertion: that as far as possible it is desirable to ascertain also the *Utility* value of such money wages, *i. e.*, the quantity and quality of the *Commodities* obtainable therefor by the labourer.
2. That the subject of Prices and Wages, as defined in the preceding Programme, may justly and advantageously be investigated under the two leading divisions of a
  - (a.) Historical Period, extending from the year (say) 1400 to the year 1790; separating these 390 years into three subdivisions, viz., (1) from the year 1400 to the year (say) 1570;—(2) from the year 1570 to the year (say) 1700;—and (3) from the year 1700 to the year (say) 1790.
  - (b.) Contemporaneous Period, commencing with the year 1790, as marking the commencement of the Revolutionary era, be divided into three periods, (1) 1790 to 1816, (2) 1817 to 1850, (3) 1850 to the present time.
3. That the leading object of the inquiries relating to the *first* sub-period, 1400-1570, should be the establishment, by ample and authentic data, of the two fundamental *Units* of—(1) the average price of the grain most commonly used for human food over as large a part of Europe as possible; and (2) the average wages of the commoner kinds of Agricultural labour over the same area.
4. That the leading object of the inquiries relating to the *second* sub-period, 1570-1700, and to the *third* sub-period, 1700-1790, should be the continuation of the same two fundamental lines of evidence, with the view of rendering as clear and certain as possible the positive data, by means of which we may estimate the effects produced on Prices and Wages by the influx of treasure from the New World in the sixteenth century.
5. That, connected with and collateral to these two fundamental lines of inquiry, it is desirable in all possible cases to collect authentic evidence illustrative of the prices of provisions, clothes, furniture, and luxuries; the prices of animals; the price of land and houses; the rate of interest; and the wages of artisan, professional, and artistic labour.
6. That as regards the *Contemporaneous* Period, 1790, to the present time, the first object should be to continue the two fundamental lines of evidence as described in the second of these propositions, and to continue them in the most perfect form, and for the greatest number of countries.



7. That the second object to be sought as regards the Contemporaneous Period is—(1) to seek the establishment of an accurate historical view of the more important Changes which have taken place in the Prices of leading commodities and in the Wages of various kinds of labour; and (2) to seek to lay the foundation, by means of facts, of accurate and comprehensive scientific views of the operation, at the same time, in different countries of the Economical principles which affect prices and wages.
8. That in order to arrive at accurate historical views of the more important changes (or fluctuations) which have taken place in the Prices of Commodities since 1790, it will in nearly all cases, be sufficient and desirable to limit the investigation to six or eight, or less, of the largest and most important articles under the heads of—

Indigenous articles of food.

„ articles of raw material.

„ animals.

Imported articles of food.

„ articles of raw material.

9. That in connection with these records it is indispensable that as much accompanying information as possible should be given relative to the collateral classes of evidence referred to in Section VII (p. 485, *ante*) of the preceding Programme.
10. That in investigating, by means of facts, the effect since 1790 of Changes in Prices and Wages, we may with most advantage specifically direct our inquiries in nearly all cases towards ascertaining the country and period in and at which the Common Labourer has been or is able to command, in the most marked degree—
  - (a.) The highest and most advancing wages.
  - (b.) The best and most improving shelter, food and clothing.
11. That considering the discoveries of Gold, Silver, and *cinnabar* which have taken place in several parts of the world since 1848, it is especially desirable and important to ascertain, by means of accurate statistics of prices and wages, the commercial and economical effects which have been (and may be) produced by these discoveries.
12. That for the purposes of comparison between the Precious Metals and Grain, a scientific expression of the average Prices of the Grain most commonly used as human food, must of necessity include the average annual results of a period of not less than *Fifty years*.
13. That in order to construct a *datum line* of comparison from which to measure the changes which have taken place since

the recent Discoveries, it will, as a general rule, be sufficient to ascertain the figures which fairly represent the *average* results for each of the Ten years 1841-50, but excluding the prices of Grain from this proposition.

14. That in carrying into effect the proposition just laid down (prop. 11), the details and methods described in Section x (p. 490, *ante*), of the preceding Programme, may be adopted with advantage, subject to needful local modifications.
  15. That in the countries which produce the New Gold, it is desirable that Tables of Prices and Wages, on the principles pointed out in Section xi (p. 492, *ante*), should be constructed in Sydney (Australia), Melbourne (Australia), Adelaide (Australia), San Francisco (California), Victoria (Vancouver's Island), and Tasmania.
  16. That it is desirable that early measures should be taken for the construction, on the principles pointed out in Section x (p. 490, *ante*), of Tables of Prices and Wages, at  

Hamburg,	Bordeaux,	New York,	Philadelphia,
Paris,	Cadiz,	Boston,	New Orleans,

for each of the Ten years 1841-50, and for each of the years since elapsed.
  17. That a special representation be made from this Congress to the authorities of the Colonies of New South Wales, Victoria, South Australia, Tasmania, West Australia, and New Zealand, pointing out the extreme desirableness and importance of an early compilation in those colonies (if possible an official compilation), of the statistics of Prices and Wages pointed out in this Programme, as adopted by the present Congress.  
That a similar representation be made to the authorities of New Columbia, and also a similar representation to the American Government as regards California.
  18. That the Congress be requested to submit to the special consideration of the *Statistical and Geographical Society of New York* the propositions adopted by this Fourth Section, as regards Prices and Wages, and invite the early and active co-operation of that eminent body in prosecuting the inquiries there referred to.
  19. That a similar communication be made to M. Chevalier, M. le Play, and M. Levasseur, of Paris, writers already so eminent in this particular class of subjects.
  20. That as far as possible the results of the inquiries now recommended be reported to the next session of the International Statistical Congress.
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(X.)—TABULAR CLASSIFICATION *adopted in sixth volume of "History of "Prices" (1857), as regards PRICES and WAGES in Melbourne, in the Colony of Victoria (Australia), 1850-6, suggested in Paragraph xi ante, as the Basis of analogous Returns to be obtained in other Gold Producing Countries.*

I.—*Building and Mining Materials.*

1. Bricks, English, per 1,000.
2. " Colonial, per 1,000.
3. Iron and Ironmongery. Hoop iron, per ton.
4. " Iron shovels, per doz.
5. " Iron picks, per doz.
6. " Camp ovens, per ton.
7. Slates. "Ladies," per 1,000.
8. " "Countesses," per 1,000.
9. " "Duchesses," per 1,000.
10. Timber. Deals, red 11 × 3, per ft.
11. " " 9 × 3, per ft.

II.—*Colonial Produce.*

12. Coffee. Java, per lb.
13. Rice. Java, per cwt.
14. Sugar. Java, brown, per ton.
15. " Manilla ration, per ton.
16. " Loaf, English, per ton.
17. Tea. Congou, per chest.
18. " Hyson, per chest.
19. Tobacco. Negrohead, per lb.

III.—*Clothing.*

20. Woollens, broad cloths.
21. Slop clothing.
22. Boots and shoes.

IV.—*Liquors.*

23. Beer. Burton ale, per hogshead.
24. " Other ale, per hogshead.
25. Spirits. Brandy, Martell's (*in bond*), per gallon.
26. " Rum, West India (*in bond*), per gallon.
27. Wines. Champagne, per dozen.
28. " Claret, per dozen.
29. " Port, per pipe.
30. " " per dozen.
31. " Sherry, per pipe.

V.—*Sundries.*

32. Candles. Sperm, per lb.
33. " Composition, per lb.
34. Soap. Liverpool, per cwt.
35. Blacking, per dozen.

VI.—*Agricultural Produce.*

36. Wheat, per bushel.
37. Barley, per bushel.
38. Oats, per bushel.
39. Hay, per ton.
40. Flour. First quality, per ton.
41. " Second quality, per ton.
42. Bread (*retail*), per 4 lb. loaf.

VII.—*Grazing Produce.*

43. Bullocks, fat, each.
44. " working, per pair.
45. Cows and heifers, each.
46. Wethers, each.
47. Butchers' Meat, Beef (*retail*), per lb.
- " Mutton (*retail*), per lb.

VIII.—*Dairy Produce.*

48. Butter, fresh, per lb.
49. " salt, per lb.
50. Cheese, per lb.
51. Milk, per quart.
52. Eggs, per dozen.

IX.—*Farmyard Produce.*

53. Geese, each.
54. Turkeys, each.
55. Ducks, per couple.
56. Fowls, per couple.

X.—*Garden Produce.*

57. Potatoes, wholesale, per cwt.
58. " retail, per lb.
59. Onions, per cwt.
60. " per lb.
61. Carrots, per bunch.
62. Turnips, per bunch.
63. Cabbages, each.

XI.—*Grazing and Pastoral Labour.*

64. Shepherds, with rations, per annum.
65. Hut-keepers, with rations, per annum.
66. Bullock Drivers, on roads, with rations, per week.



XII.—*Farm Labour.*

- 67. Married Couples, with rations, per annum.
- 68. Bullock Drivers, on farms, with rations, per *week*.
- 69. Farm Labourers, with rations, per week.

XIII.—*Town Labour.*

- 70. Grooms, with rations, per annum.
- 71. Gardeners, with rations, per annum.
- 72. Men Cooks, with rations, per *week*.
- 73. Waiters, with rations, per *week*.

XIV.—*Artizan Labour.*

- 74. Carpenters, per day.
- 75. Blacksmiths, per day.
- 76. Masons, per day.
- 77. Bricklayers, per day.
- 78. Wheelwrights, per day.
- 79. Sailors' Voyage to England.

XV.—*Domestic Servants.*

- 80. Female Servants of all work, per annum.
- 81. Housemaids, per annum.
- 82. Laundrymaids, per annum.
- 83. Nursemaids, per annum.
- 84. Cooks (female), per annum.

XVI.—*Price of Gold and Bank Returns.*

- 85. Gold, per ounce, per troy.
- 86. Insurance of Gold to London, *free* of war risk, per cent.
- 87. Insurance of Gold to London, *with* war risk, per cent.
- 88. Exchange on London, Banks sell drafts on London, 30 days per cent.
- 89. Victoria Banks, Bank Note Circulation, millions.
- 90. Victoria Banks, Bills under Discount, millions.

XVII.—*Rate of Interest, &c.*

- 91. Money Market, Rates of Discount, Bills not above 95 days per cent.
  - 92. Money Market, Rates of Discount, Bills above 95 days per cent.
  - 93. Money Market, Interest on overdrawn Accounts, per cent.
  - 94. Money Markets, Interest on Mortgage of Land, per cent.
  - 95. General State of Trade ; short descriptive sentence.
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OBSERVATIONS on the present and recent Condition of the FINANCES of AUSTRIA. By J. E. HORN (*Paris*), *Honorary Member of the Statistical Society of London, &c., &c.*

[M. HORN, whose reputation as one of the most accomplished writers on Political Economy and Finance has been established by a succession of important works,\* has contributed to the "Journal des Economistes," for September, 1860, a Paper on the Present and Recent Condition of the Finances of Austria. From this paper we have made several extracts, under the assurance that at the present moment not only is the information afforded of the highest interest, but also that the authority under which it appears is entitled to our best attention. In the long series of valuable memoirs which enrich the "Journal des Economistes," few have appeared more seasonably opportune as regards both subject and author.—ED. S. J.]

In the following statement M. Horn gives a general view of the subject.†

"Un certain esprit d'économie routinière et d'honnêteté relative avait donc pénétré jusque dans la gestion financière de l'empire d'Autriche : on ne forçait pas les recettes, et l'on parvint néanmoins à les faire suffire aux besoins de l'état ; le Trésor commençait à rentrer dans une situation normale. Le contre-coup de la révolution de Juillet interrompt ces beaux commencements grâce surtout à l'augmentation des dépenses Militaires nécessitée par les mouvements populaires en Italie et en Gallicie. Aussi, malgré la sensible progression des Recettes, qui, de 12,000,000*l.* en 1831, arrivent à 13,000,000*l.* en 1834, les exercices réunis de 1831 à 1835 laissent un déficit de 7,000,000*l.* environ. Peu à peu s'effacent pourtant les dernières traces de ces perturbations politiques ; aux *Déficits* qu'elles ont produits et maintenus succède une véritable prospérité financière. Entre 1836 et 1843, les recettes, par une progression naturelle et continue, s'élèvent de 14,000,000*l.* à 15,000,000*l.*, tandis que les dépenses, de 13,000,500*l.* en 1836, ne s'accroissent, jusqu'en 1842, que de 1.5 millions environ par exercice. Pour les huit exercices réunis de 1836 à 1842, l'excédant dépasse la somme de 5,000,000*l.* ;

\* The "Annuaire International du Credit Publique" (M. Guillaumin and Co., 8vo., 5 fr.), by M. Horn, has already appeared for the years 1859 and 1860,—and is a publication of great value. M. Horn is not a Frenchman, but a native of Hungary, and a remarkable example of the versatile accomplishments of the Magyar race.

† The Austrian currency has been converted throughout into *sterling* @ 2 florins = £.

ce fait est d'autant plus remarquable à côté des fortes sommes qui commencent à être consacrées aux constructions de chemins de fer. Ce sont ces dépenses productives seules qui, dans les trois exercices suivants, produisent un déficit de 1,600,000*l.* environ ; en les défalquant, on obtient pour la triennale un excédant de recettes de 3,000,000*l.* Aussi, la rente Autrichienne est-elle au-dessus du pair ; les notes de la Banque de Vienne obtiennent, contre espèces, une prime de  $1\frac{1}{2}$  à 2 % ; les emprunts de l'état se négocient très-avantageusement.

“ La construction des voies Ferrées, l'acquisition du matériel roulant et les premiers essais du Télégraphe électrique absorbent en 1847, environ 3,500,000*l.* ; ils contribuent ainsi pour une part très-large au déficit de 4,200,000*l.*, que laisse cet exercice. Ces dépenses productives n'en sont pourtant pas la cause unique ; la disette et la crise commerciale dont souffre l'Europe entière, s'aggravent pour l'Autriche des agitations populaires dont l'Italie est travaillée, par suite des réformes libérales que tente Pie IX. Ces agitations nécessitent dans la Lombardie-Vénétie un plus grand déploiement de forces militaires ; l'année précédente, l'incorporation de la ville libre de Cracovie et les agitations de la Gallicie,—coûteuses en outre à cause des princes que le gouvernement paternel de ce ‘ bon ’ Ferdinand I<sup>er</sup> paye aux paysans pour chaque tête de noble qu'ils coupent,—avaient agi déjà dans le même sens ; les *dépenses Militaires* qui, pendant dix ans, s'étaient maintenues entre 5,000,000*l.* 5,200,000*l.*, montent, en 1847, 7,300,000*l.* Naturellement, elles ne redescendent pas en 1848 et 1849 ; bien au contraire, l'accroissement des dépenses s'aggrave alors, par suite des révolutions d'Italie et de Hongrie, d'une forte diminution des recettes : de 15,000,000*l.*—15,400,000*l.* qu'elles avaient été avant 1848, les recettes s'abaissent d'un coup à 11,200,000*l.* en 1848, et ne remontent encore qu'à 14,300,000*l.* en 1849. Les budgets de ces trois années clôturent forcément en déficit.”

“ Le plus clair, sous le rapport financier, dans les réformes tentées ou réalisées depuis dix ans en Autriche, c'est le complet *effacement de cet esprit d'économie* ou de régularité stationnaire du moins, qui, avant 1848, avait présidé à la gestion financière de l'empire.

“ Depuis 1850, ce n'est pas l'empereur seul qui, pour les dépenses de l'armée, par exemple, la seule branche des services publics dont François-Joseph s'occupe sérieusement, n'a pas à tenir compte des ressources du pays ni des devis de l'administration ; il s'est établi entre les ministères une sorte de tolérance réciproque, grâce à laquelle chacun peut à son gré forcer les exigences de son budget, à la seule condition de laisser la même liberté à ses collègues. On fermait ainsi mutuellement les yeux, et l'on se réunissait pour les



fermer aux bureaux de contrôle. Le lecteur devine aisément où devait conduire une gestion financière dirigée par une coalition de complices volontairement aveugles.

“ Elle a abouti,—nous passons sur les affaires à la Eynatten, dans lesquelles nous voulons bien ne voir que de scandaleuses exceptions,—elle a abouti à un accroissement des dépenses hors de toute proportion avec les facultés contributives du pays, aussi bien qu’avec les services rendus. Si l’on compare le montant des *Dépenses* dites *ordinaires* à la veille de la Révolution de mars (1847), et à la veille de la guerre d’Italie (1858), voici les chiffres que l’on obtient :—

Dépenses Ordinaires.	1847.	1858.	Accroissements.	
	£	£	£	Pr. ct.
Liste civile .....	516,640	668,905	152,266	29·5
Ministère de l’Intérieur .....	1,643,115	2,613,657	970,542	59·1
„ des Affaires Etrang. ....	183,098	215,058	31,960	17·5
„ du Commerce, &c. ....	1,135,529	1,843,974	708,445	62·4
„ des Finances .....	1,239,629	2,504,390	1,264,761	102·0
„ de la Justice .....	491,683	1,563,002	1,071,319	217·9
„ du culte et de l’In- } struction Publique }	249,073	568,449	319,375	128·2
„ de la Police.....	242,950	1,003,306	760,356	312·9
Armée .....	6,296,810	9,708,476	} 4,057,466	64·4
Marine.....	—	645,500		
Dette Publique .....	4,537,721	9,596,328	5,058,607	111·5
Bureaux de contrôle .....	289,108	359,665	70,557	24·4
Divers .....	54,492	385,270	330,778	308·8
Ensemble.....	16,879,848	31,675,980*	14,796,132	87·6

\* Ce total officiel dépasse de 172,000*l.* le chiffre également officiel donné dans notre *Annuaire*; le chiffre ci-dessus ayant été publié ultérieurement, il est sans doute le moins inexact des deux.

“ La *Liste Civile*, le Ministère de l’Extérieur et le contrôle, qui, tous ensemble, ne prennent en 1847 que 1,000,000*l.* ou 5·8 % du total des dépenses, sont les seuls chapitres où l’augmentation soit relativement modeste. Il convient de faire remarquer que l’allocation budgétaire de 670,000*l.*, ne représenté aucunement le total des *Charges* que l’entretien de la Famille Regnante impose au pays; celle-ci est pourvue, en outre, de vastes domaines dont la valeur et le revenu ont doublé peut-être en ces dix dernières années. Si les dépenses pour la représentation à l’extérieur n’ont augmenté que de 17·45 %, les services de ce département ont diminué dans une proportion bien autrement forte. Pendant plus de trente ans, l’Autriche du Prince de Metternich avait dominé dans les Conseils

de l'Europe; qui la reconnaîtrait dans l'Autriche du Comte de Rechberg, atteinte d'une extinction presque complète de voix? La remarque s'applique aussi aux bureau de contrôle; jadis un mécanisme aussi important qu'efficace, ils ont dégénéré en une véritable sinécure, et cela dans le sens le plus strict de mot, puis qu'ils n'ont cure de rien: quand ils devraient veiller partout à l'économie, ils laissent partout les comptes de dépenses s'enfler outre mesure.

“ Il ressort, en effet, du tableau qui précède combien peu est fondée l'opinion qui attribue les embarras financiers de l'Autriche à l'accroissement seul de son *Budget Militaire*. Relativement l'augmentation duo-décennale 54.18 % pour l'Armée de Terre seule, et 64.43 %, si l'on y ajoute la Marine,—y'est moins forte que pour la plupart des autres départements. On pourrait même trouver que la progression du Budget Militaire n'a pas marché à pas égal avec celle des autres ministères en 1847, l'armée absorbe 62.9 millions sur une dépense de 16,800,000*l.*, soit 37.30 %; en 1858, la quote-part n'est que de 32.69 %, pour l'armée et la marine réunis, ou même que de 30.65 % pour l'armée seule.

“ *La Dette*, le chapitre le plus coûteux après l'armée, a vu son allocation augmenter dans une proportion bien autrement forte (de 5,000,000*l.*, ou de 111.5 %). Il est vrai que l'armée entre pour une large part dans cet accroissement-là, mais pour une part seulement. Les autres dépenses, en dehors de l'armée et de la dette, ont monté ensemble de 6,000,000*l.* à 12,000,000*l.*; l'augmentation est donc de 5,600,000*l.* ou de 94 %, c'est-à-dire presque aussi forte que celle de la dette, et beaucoup plus forte que l'augmentation du Budget Militaire.

“ Sans adhérer le moins du monde à la mauvaise plaisanterie qui proclame l'impôt le meilleur des placements possible, nous ne poussons cependant pas le rigorisme jusqu'à condamner d'une façon absolue tout accroissement des dépenses publiques: il peut y avoir des accroissements parfaitement légitimes et pleinement féconds. Mais ni l'une ni l'autre épithète ne sont applicable à la progression des dépenses publiques en Autriche. Pour s'en convaincre, il suffit de se demander qu'elle a été la cause et quel est résultat de cette surcharge imposée aux populations.

“ La cause première en est dans le rêve de la monarchie unitaire, centralisée et absolutiste à l'excès, que le Ministère Bach-Schwarzenberg voulait réaliser à tout prix. Dans ce but, toute liberté et toute activité autonome devaient être enlevées aux provinces, aux départements, aux communes, à l'individus pour augmenter d'autant le nombre et élargir d'autant le cercle d'action des organes administratifs, judiciaires, policiers; sous le rapport budgétaire, ce système se traduit par *un accroissement de dépenses* qui est de 59 % au Ministère de l'*Interieur*,—de 218 % au Ministère de la *Justice*,—de



313 % au Ministère de la *Police*. Pour maintenir de force ce régime, foncièrement antipathique à l'immense majorité des populations, il fallait, en temps de paix, doubler l'effectif de l'armée, et en tenir constamment une grande partie sur le pied de guerre : cela se traduit, au point de vue budgétaire, en un accroissement de 64 % sur les dépenses militaires. Les ressources dites ordinaires, quoique 'forcées' à l'extrême, ne pouvant pas progresser à pas égal avec ces charges, il fallait emprunter, emprunter partout, emprunter toujours, emprunter à tout prix, et voilà comment, en douze ans, la charge annuelle de la dette publique s'est accrue de 111·5 %.

"Le but auquel on faisait tous ces sacrifices a-t-il au moins été atteint? A défaut de toute autre justification cette politique d'épuisement financier des populations peut-elle se targuer de l'équivoque absolution d'un succès même éphémère? Aucunement, répondent les faits avec une incontestibilité écrasante. L'Autriche a voulu, par les liens de l'absolutisme centralisateur, serrer plus fortement autour du trône des Habsbourg les diverses provinces à lui soumises : elle se trouve, par le fait même de cette politique, diminuée d'une de ses plus belles provinces la Lombardie. Elle a voulu, par la fusion violente de ses hétérogènes éléments constitutifs, devenir unie et forte : elle est à l'intérieur plus divisée que jamais, et les plus important de ses 'pays de la couronne,' ceux précisément que la centralisation nivellatrice prétendait rattacher à tout jamais à la monarchie unitaire, la Vénétie, la Hongrie, la Croatie, la Transylvanie, sont dès aujourd'hui en insurrection morale, épiant le moment de faire passer l'insurrection dans le domaine des faits. L'Autriche a voulu, enfin, par la concentration forcée de tous ses éléments de puissance, être forte, par là influente et respecté en Europe : jamais son rôle n'a été plus réduit, son impuissance plus notoire."

Mr. Horn next adverts to the classes of ordinary and extraordinary Expenditure and Resources:—

"Dans les données qui précèdent, nous n'avons tenu compte toutefois que des Dépenses dites *ordinaires* de l'exercice 1858, les seules pour lesquelles l'époque d'avant 1848 offre des points de comparaison. Mais, à côté de ces dépenses, on a vu depuis lors s'en introduire et se maintenir d'une façon permanente deux autres catégories : les *Dépenses Extraordinaire* et les *Dépenses Spéciales*. En 1858, les premières se sont élevées à 400,000*l.*, les secondes à 9,000,000*l.* Ajoutons les à celles de la première catégorie, et nous arrivons à un *total de Dépenses* de 41,000,000*l.*; l'augmentation réelle sur l'exercice 1847 n'est donc plus de 15,000,000*l.*, ou de 87·7 %, comme la fit ressortir notre tableau ci-dessus, *mais bien de* 24,000,000*l.*, *ou de* 142·2 %. Nulle part en Europe les dépenses



publiques n'ont suivi une marche aussi rapidement ascendante, quoique pas un seul Etat peut-être n'ait manqué, en ces dix dernières années, de faire correspondre l'accroissement des dépenses publiques aux progrès réels ou supposés de la prospérité nationale.

“ Une autre considération encore ne doit pas être négligée par quiconque veut se rendre un compte véridique de la progression des dépenses publique en Autriche : la comparaison que, pour simplifier la question et pour mettre à l'abri notre impartialité, nous avons établie entre l'année qui a précédé la révolution de 1848, et le année qui a précédé la guerre d'Italie, n'exprime pas avec toute l'exactitude qu'on pourrait exiger en pareille matière ce que coûte la Nouvelle-Autriche. Les années prises pour points de comparaison sont l'une et l'autre exceptionnelles, mais pas dans le même sens. En 1847, par des causes signalées plus haut, les charges publiques dépassent le niveau moyen de cette époque ; en 1858, en les ‘ force,’ dans le sens contraire pour mieux faire croire à l'éclosion d'une nouvelle ère financière qui doit être inaugurée, le 1<sup>er</sup> Janvier, 1859, par le simulacre d'une reprise des paiements à la Banque de Vienne.\* Si, au lieu de ces deux années exceptionnelles, nous comparons entre elles les moyennes des années 1845 et 1846, d'une part, des années 1856 et 1857, d'autre part, nous arrivons aux résultats que voici :

CLASSES.	Moyenne des Exercices.		Accroissements.
	1845-46.	1856-57.	
Dépenses ordinaire .....	£ 15,803,057	£ 32,303,227	£ 16,500,170
„ extraordinaire ....	—	1,514,056	1,514,056
„ spéciales .....	—	13,482,424	13,482,124
Ensemble .....	15,803,057	47,299,407	31,496,350

“ Soit un accroissement de 199·3 % ; en d'autres termes, *dans le court espace de dix à douze ans, les dépenses publiques ont triplé en Autriche.*

“ Ainsi, de 1846 à 1847, le total des *Ressources* à la disposition du Trésor monte de 16,000,000*l.* à 42,000,000*l.*, mais il y a dans ce dernier total 22·4 millions de *Ressources Extraordinaire* et 12,000,000*l.* de *Ressources Spéciales, dues aux Emprunts*, aux aliénations. Restent 27,000,000*l.* de *Revenus* dits *ordinaires*, ce que les constitue en augmentation de 11,000,000*l.* sur les revenus de 1846. Mais, dans ce chiffre, entre, par exemple, l'impôt du revenu, intro-

\* “ On a su depuis ce que signifiait la diminution des dépenses *publiques* en 1858 ; elle a été compensée et bien au delà par l'émission *clandestine* de 11,000,000*l.* d'obligations.”

duit seulement depuis 1850, pour 1,000,000*l.*; la Hongrie seule fournit 620,000*l.* en Impôt de *consommation*, 11,000,000*l.* du chef du monopole du *Tabac*, et 200,000*l.* environ pour *Timbre*, soit ensemble 2,000,000*l.* pour trois *Impôts Indirects* qui, avant 1848, lui avaient été entièrement inconnus. La même remarque s'applique, en grande partie, à la Lombardie-Vénétie, qui a dû également expier sa défaite de 1849 par la surcharge d'impôts nouveaux; entre autres, ou lui a Octroyé depuis cette époque l'impôt sur la *Bière*, qu'antérieurement elle avait ignoré. Ajoutez l'impôt sur le *Sucre indigène*, que la monarchie entière connaît seulement depuis 1850, la sur-élévation générale quoique inégale de l'impôt foncier,—nous dédaignons parler des 'creations' et des 'réformes' de moindre importance, et la part qui revient au progrès naturel, intrinsèque, dans l'accroissements du revenu public, se trouve réduit à des proportions plus que modestes.

“ Un chapitre au budget de *Recettes*, cependant, montre un accroissement considérable; la *Loterie* n'a donné en 1846 que 500,000*l.* de revenu net, tandis qu'en 1857 on lui a fait vendre 700,000*l.* Cette branche du service public, si éminemment morale et moralisatrice, a été cultivée par le gouvernement néo-Autrichien avec un zèle, un dévouement dont les représentants de l'ordre, de la morale et de la religion sont seuls capables; des agences de jeu ont été établis jusque dans les localités les moins populeuses, et de fortes primes ont particulièrement stimulé le zèle des agents impériaux et royaux chargés de soutirer par le jeu le dernier *groschen* ( $7\frac{1}{2}$  c.) du pauvre. Aussi, les enjeux qui, en 1850, n'avaient encore été que de 800,000*l.*, se sont-ils, par une progression rapide et continue, élevés en 1857 à 2,000,000*l.*, soit un accroissement de 150 % environs. C'est le seul *progrès* incontestable que le régime nouveau ait fait faire aux peuples Autrichiens. Encore, ce progrès profite-t-il au Trésor beaucoup moins qu'on ne l'imaginerait. En 1857, les gains ont repris 11.4 millions sur les enjeux; s'y ajoutaient 1.6 millions pour commissions et primes; le Trésor n'a donc gardé que 700,000*l.* sur les 2,000,000*l.* que, par les moyens les plus immoraux et les plus ruineux pour les populations, il soutirait aux bourses des plus misérables.”

The Paper refers, in the next place, to the growth of the Financial Deficits:—

“ Mais, ruses ou violences, corruptions ou ordonnances, tous ces moyens étaient impuissants, on le comprend, à faire tripler en dix ans les ressources du Trésor, comme nous en avons vu tripler les charges. Un accroissement aussi fort et aussi rapide des revenus publics serait une presque-impossibilité, même dans un pays qui avancerait à pas de géant dans la voie au développement économique; c'est une impossibilité absolue sous un système qui, en même temps que la liberté politique, comprime tout mouvement spontané,



tout développement sani et fécond ; sous un gouvernement qui, dans sa banqueroute, entraîne celle de l'unique établissement de credit et ruine toute l'activité économique par le cours forcé des bank-notes et par tous les inconvénients écrasants de l'agio. Le résultat en est que, tout en tendant à l'extrême et jusqu'à la rompre la corde contributive des populations, ou ne parvient pas à joindre les deux bouts, ne fût-ce qu'approximativement.

“ Des renseignements tout à fait dignes de confiance font voir que le *Deficit* s'est élevé :—

	£		£
En 1848 à .....	6,000,000	En 1855 à .....	19,000,000
„ 1849 „ .....	14,000,000	„ 1856 „ .....	11,100,000
„ 1850 „ .....	9,000,000	„ 1857 „ .....	10,000,000
„ 1851 „ .....	10,400,000	„ 1858 „ .....	4,000,000
„ 1852 „ .....	8,000,000		
„ 1853 „ .....	8,600,000	<i>Ensemble Déficits....</i>	<u>118,100,000</u>
„ 1854 „ .....	18,000,000		

“ Ou, en moyenne, 11,000,000*l.* par an ; c'est au delà de deux-tiers du revenu total qu'avant 1848 le Trésor avait pu tirer de toute la monarchie !

“ Pour faire face, autant que possible, à des *Deficits* aussi formidables, le gouvernement vendait, rien moins qu'avec bénéfice, les chemins de fer, que dans ses meilleurs jours il avait construit à grands frais. Ce furent, en 1855, les réseaux Hongrois et Bohémien, cédés à la Compagnie Franco-Autrichienne, au prix de 200 millions de francs ; ce fût, en 1856, le réseau Lombardo-Vénétien, vendu au crédit mobilier Autrichien pour 3,300,000*l.* ; ce fût, en 1858, la ligne der Sud, cédée à la même Compagnie pour 10,000,000*l.* C'est encore dans le même but qu'on aliénait des domaines de la couronne en Hongroie et en Transylvanie, qu'on en engageait d'autres à la Banque pour 15,000,000*l.* Mais c'étaient des gouttes d'eau ayant la prétention d'étancher une insatiable soif. Il fallait donc s'endetter constamment, profondément, jusqu'à la perte complète du crédit.

“ Le Tessin n'en fût pas moins franchi, ‘ l'empereur fait ce que l'empereur veut,’ répondit François-Joseph à ceux qui firent entendre devant lui le langage de la raison. On sait ce que coûta ce coup de tête impérial, sous le rapport financier seulement, à ses peuples. Une série de décrets publiés le jour même de la déclaration de guerre au Piémont, le 29 Avril, ou peu de jours après (7 et 13 Mai), venaient étendre ou surélever presque tous les impôts, si larges déjà et si lourds. L'impôt de consommation est augmenté de 20 % ; le sel est renchéri de 15 % ; le timbre, le droit d'enregistrement, d'hypothèques, etc., ainsi que les *taxes*, subissent une surélévation de 25 % en moyenne. A ces aggravations d'impôts indirects s'en ajoutent d'analogues sur les impôts directs ; l'augmentation de guerre est de  $\frac{1}{6}$ <sup>e</sup> pour l'impôt foncier et l'impôt des loyers, de  $\frac{1}{5}$ <sup>e</sup> pour



l'impôt industriel et du revenu, de moitié pour l'impôt (locatif) dit des classes. Il va presque de soi que ces impôts de guerre survivent au rétablissement de la paix ; aujourd'hui encore, il n'est pas question le moins du monde de les faire cesser dans un avenir plus ou moins prochain. Malgré cette forte surcharge, malgré la courte durée de la guerre, et quoique l'Autriche en soit sortie avec un considérable dédommagement que le Piémont eut à lui payer pour la cession de la Lombardie, l'exercice 1859, d'après le rapport que vient de publier la 'Gazette de Vienne' (du 1<sup>er</sup> Septembre, 1850), clôt avec l'énorme Déficit de 15,000,000*l.*

On the subject of the amount of the Austrian Debt, and the extent of the Inconvertible Paper in Circulation, the statements are as follows :—

“ Une récente publication officielle, le rapport de la Commission instituée pour l'examen de *la Dette*, justifie pleinement cette opinion. D'après ce rapport, l'Autriche doit 10,500,000*l.* en *Monnaie Viennoise* (*wiener Währung*) ; un milliard 82,000,000*l.* en *monnaie de Convention* (*Conventions Münze*) et 7,000,000*l.* en *Monnaie Autrichienne* ; à quoi s'ajoutent 34,500,000*l.* m. a. pour la *Dette Flottante*. En ramenant toutes ces obligations au taux uniforme d'une dette à 5 % en monnaie actuelle ou monnaie Autrichienne (*Oestréichische Währung*), on obtient un total de 227,000,000*l.* = 5,670,178,830 francs. Ce chiffre est plus que respectable. Toutefois, le Ministre des Finances dans une note publiée à la suite du rapport, le déclare inférieur de 6,300,000*l.* au total qui ressorterait de ses tableaux à lui. Ensuite, la commission n'a pas compris dans ses calculs la Dette Lombardo-Vénitienne dont le compte n'est pas établi, les commissaires nommés à cette fin en exécution du traité de Zurich n'ayant pas encore terminé leur travail ; elle a laissé de côté les garanties d'intérêts accordés à différentes compagnies, parcequ'il lui plaît de regarder les dépenses respectives comme de simples avances qui pourraient un jour être remboursées ; elle a élagué les dettes des Etats provinciaux (aujourd'hui supprimés) de la Basse-Autriche, de la Styrie et de Goritz, parceque la question de savoir si elles doivent être comprises dans la dette générale de la monarchie, est encore pendante ; enfin, la commission n'a pas tenu compte de la dette provenant du rachat des droits seigneuriaux, parceque celle dette, quoique les charges en soient supportées par tous les contribuables indistinctement, est censée constituer une dette particulière de quelques provinces.

“ Des calculs approximatifs mais suffisamment exacts permettent de porter à 43,000,000*l.* ou 44,000,000*l.* le montant en capital de ces erreurs et omissions ; le total de la Dette s'élèverait ainsi, somme ronde, à milliards 70,000,000*l.* Mais la commission a arrêté ses investigations à la date du 31 Décembre, 1858. Nous avons signalé

déjà, et tout le monde comprend d'après ce qu'on a vu dans les précédentes années normales, quelle a dû être en 1859 et en 1860 l'insuffisance des ressources : nous restons au-dessous de la réalité en l'évaluant à 15,000,000*l.* par an, soit ensemble à 300 millions de florins. Ils'agit, cela va sans dire, de l'accroissement de la Dette Flottante, en dehors de l'accroissement de la Dette Consolidée par les deux Emprunts généraux de 1859 (six millions, £ st.) et de 1860, 20,000,000*l.* dont la (majeure) partie non couverte par la souscription a été fournie provisoirement par la Banque de Vienne —et par l'emprunt Lombardo-Vénétien de 7,500,000*l.*, réduit à 3,000,000*l.* par suite de la perte de la Lombardie. Le compte de la dette Autrichienne en ce moment s'établirait donc comme suit.

Description.	Totale. £	Francs.
Dette reconnue par la Commission .....	227 mlms. =	5,670 mlms.
Rectification du Ministère de Finances .....	6 „	157 „
Omissions avouées .....	37 „	923 „
<i>Total au 31 Décembre, 1858.....</i>	<i>270 „</i>	<i>6,750 „</i>
 Emprunts de 1859 et de 1860 .....	 38 „	 950 „
Accroissement de la dette flottante .....	30 „	750 „
<i>Total au 1<sup>er</sup> Septembre, 1860 .....</i>	<i>338 „</i>	<i>8,450 „</i>
Part prise par le Piémont sur la dette } Lombarde { .....	4 „	100 „
 Reste .....	 334 „	 8,350 „

“ C'est une dette presque aussi formidable que celle de la France. Il y a cependant des différences fort notables en faveur de ce dernier pays. La dette Française, qui était le 1<sup>er</sup> Janvier, 1849, de 6 milliards 860 millions de francs, est aujourd'hui de 9 milliards 113 millions, soit en douze ans un accroissement de 2 milliards 253 millions ou de 32·8 %; la dette Autrichienne a monté dans le même espace de temps de 2 milliards 500 millions de francs à 8 milliards 350 millions, soit une augmentation de 5 milliards 650 millions ou de 234 %. En France, les emprunts ont été faits pour soutenir des guerre désintéressées et glorieuses; l'Autriche a emprunté lors de la guerre de Crimée pour rester l'arme au bras, et elle a, dans la guerre l'Italié, payé de ses dettes son éclatante défaite. Une partie des sommes empruntées a été appliquée en France d'une façon plus ou moins productive, pour construction de routes, pour subventionner les chemins de fer, pour secourir l'industrie; en Autriche, l'endettement si rapide coïncide au contraire, on l'a vu plus haut, avec l'aliénation des placements productifs faits à une époque antérieure.”

OBSERVATIONS *on the STATE of the ABORIGINAL MAORI INHABITANTS of NEW ZEALAND.* By F. D. FENTON (*Auckland*), the *Compiler of the Statistical Tables of the Maori Population.*

[Read in abstract to the Statistical Society of London, 1860.]

THE New Zealand Government, in publishing Mr. Fenton's paper,\* state that its object is to draw attention to the state of the Native Population,—especially to its *decrease* in numbers,—with a view to invite inquiry as to the cause, and suggestions of a remedy.

The statistical tables referred to in the title show (as far as can be ascertained) the aboriginal Native population of New Zealand. They give for each district and province the number of males and females, separately,—aged, under 14 and above 14, and the totals.

It would be useless to reprint here the minute details for each district. The following recapitulation of the estimated aboriginal population of each province will suffice:—

*Recapitulation.*

PROVINCE.	Maori Population, 1858.		
	Males.	Females.	Totals.
Auckland.....	21,630	16,560	38,269
New Plymouth .....	1,751	1,264	3,015
Wellington .....	6,603	5,169	11,772
Nelson .....	692	428	1,120
Canterbury .....	349	289	638
Otago .....	285	240	525
Stewart's Island and Ruapuke ....	110	90	200
Chatham Islands .....	247	263	510
General Totals .....	31,667	24,303	56,049 †

†  $31,667 + 24,303 = 55,970$ . There is a difference of 79 between this and the general total. It arises from the sex of 79 individuals unascertained in the province of Auckland.

The statistics were prepared from returns furnished by local collectors, to whom limited districts of inquiry were respectively assigned. The gentlemen employed were selected from among those whose pursuits bring them into constant intercourse with the native

\* Auckland: printed by W. C. Wilson, for the New Zealand Government, 1859, folio, 44 pp. and tables.



race, and who are therefore best able to acquire the information desired, without exciting jealousy or suspicion.\*

The total numbers, male and female may, Mr. Fenton believes, be received without distrust. Those given for the province of Canterbury are absolutely accurate; those for Nelson and Otago are a close approximation. The statistics of the population of the provinces of the Northern Islands are also presented as trustworthy, with the exception of those for some portion of Auckland, in which the numbers are mere estimates, and are stated as such.

The division at the *age of fourteen* into two classes—adult and non-adult—must not be regarded as equally correct; necessarily depending on the varying conjecture of the individual collector or the still more uncertain fancy of his native deputy.

The returns, as to the population, are complete, purporting to contain the whole aboriginal population of the colony (except the Chatham Islands).

The following are the most important parts of the Paper:—

*Opinions of the Enumerators as to the progress of the Population.*

“The continuous decrease, in numbers, of the native Maori race is admitted by nearly all those who have had the means of forming an original opinion on the subject. Mr. Heaphy, one of the census collectors, says:—‘I have long considered that the Maori population was over-estimated as to number, and also that it was fast diminishing. The papers will show that, for the area occupied, it is scanty in the extreme, and that the relative proportion of females to males, and of children to adults, is such as to indicate, as far as the data go, the extinction of the race in a few generations.’ Mr. Smith observes, that the Ngatiwhakaue tribes are very rapidly on the decrease. The Rev. Mr. Reimenschneider reports, that in 1847 the number of souls in the New Plymouth district amounted to no less than 900 and upwards. Their decrease to the present number (588) has resulted from *no other cause but mortality.*”

*Absence of previous Official Information, and Census taken by the Missionaries in 1844.*

“The absence of any previous official census of the Maori population deprives the present enumeration of much of the value that would otherwise belong to it, as affording a certain means of ascertaining the rate at which the people are increasing or decreasing, by comparison with their numbers in previous years. This deficiency has, in some measure and to a certain extent, been supplied by the Reverend Messrs. Maunsell, Ashwell, and Morgan, the resident Church of England Missionaries of the *Waikato District*,† who have furnished Mr. Fenton with a copy of a very perfect *nominal* census,

\* We notice the names of two ministers of religion and one military officer, among the enumerators.

† In Auckland province.

of the people in that great district for the year 1844, in which, fortunately, the age of division into adult and non-adult members is the same as in the census now under consideration. The period of time which has since elapsed, being just fourteen years, further simplifies investigation, and affords a very easy proof that all the children now members of the tribes which these gentlemen numbered who do not appear in the census of 1844 (immigrants excepted) must be under the age of 14 years."

*Comparison of Population of 1844 with that of 1858.*

"With a view to remove the doubt which must attend all calculations based upon figures, the perfect accuracy of which is not known, and to obviate the uncertainty which must diminish the value of inferences drawn from premises which are not thoroughly established, recourse has been had to the census above-named, and the number of deaths and emigrations amongst the persons then enumerated have been ascertained, in *certain tribes indiscriminately* taken for the purpose, and also the number of births and immigrations, since the enumeration of 1844.

"As all persons conversant with Maori affairs are aware of the great difficulty of obtaining information from, or respecting, them, characterized by that great accuracy without which statistics are almost worthless; and as perfect credit will, consequently, not be attached to the information thus obtained unless evidences of care and caution are abundantly given, the names of the persons alive in 1844 and 1858 respectively, with the whole process gone through, is furnished in the further tables of Mr. Fenton, which will be presently noticed.

"It may be mentioned that all the tribes selected for this minute examination occupy very *healthy situations*, though of varying physical character, and have made no important migrations during the interval of 14 years, with the exception of Ngatikarewa, who have crossed the river, and a few of Ngatikahu and Tekaitutai, who partially reside now at Taukau. Ngatitahinga and Ngatikarewa, occupying villages near the mouth of the Waikato, are abundantly supplied with salt water fish: Ngatitipa obtain a considerable portion of their fish from the same source. Ngatikahu and Tekaitutai form parts of a large tribe, Ngatipou, long celebrated for the value of their eel preserves; and to the abundance of that food, thence obtained, is attributed the fact, that the members of that tribe are physically, the largest, and apparently the most healthy, of any Maori in the district. Te Ngaungau, so called from their quarrelsome disposition in former times, inhabit the central plain of Waikato, around Paetai, and also obtain large quantities of eels from the adjoining lake Waikari. Ngatiwhauroa reside on the belt of sandy soil bordering the river, where it passes through the gorge of the Taupiri range of mountains. The Ngatimahuta people the banks of the lower Waipa for twenty miles, following the serpentine course of the river; and Ngatihinetu and Ngatiapakura are well known as the great wheat producing tribes, cultivating the fertile district around Rangiaohia.

"In fact, the food and habits of the people included in this inves-



tigation differ in no material matter from those of the great bulk of the aborigines, with the exception that the Rangiaohia people commenced at an earlier period the cultivation of wheat, and continue, to a greater extent than most tribes, the consumption of flour as an ordinary article of food.

“It will be observed, that several of the male adults of the tribes Ngatikahu and Ngatitipa are recorded as “shot.” These lives were lost at the battle of Te Ihutaroa, in 1846; but the Europeans who then resided near the scene of action, and were in daily intercourse with the people, agree in the opinion that none of the usual evils of a state of war seriously affected the general population, and that the deaths resulting therefrom were, in fact, confined to those which occurred in the field.

“Unfortunately, it cannot be alleged that the presence of deaths by violence in these statements will reduce the cases taken to exceptional ones.

“Mr. Fenton proceeds in his inquiry by annexing in detail the tables which constitute the *statements* referred to in the preceding remarks. The tables are fifteen in number, and give the *names* of each of the adult and non-adult members of the various tribes whose mortality, migratory, and conjugal family condition are specifically inquired into. A summary is then presented for each tribe, showing (1) the total population in 1844; (2) the emigrations to 1858; (3) the difference in the population of 1844 after deducting the emigration during the fourteen years, such difference being termed the ‘numbers for comparison’; (4) the deaths between 1844 and 1858; and (5) the numbers surviving in 1858, being the differences between (3) and (4).

“In order to give a condensed view of the information contained in the fifteen tables and summaries with reference to the movement of the population during the interval between 1844 and 1858, Mr. Fenton annexes a very elaborate table, the results of which may be condensed and re-arranged as follows:—





*Prolificness of Marriages as affected by the Consanguinity of the Parties.*

“In order to throw some light upon the question of how far the prolificness of marriage is affected by the consanguinity of the parties, and as to the number of children of each marriage, and the proportion of the children dead to the children living, the following table has been constructed.

“The information contained therein is confined to too limited a number of women to claim much attention, the difficulty of arriving at the facts having restricted inquiry. However, as far as it goes, it does not manifest in a very marked manner the effect of consanguinity in the parties; but the large number of children who have died in proportion to those who have survived is sufficiently striking; especially when it is remembered that many of those now alive are still very young, and some of them have the most fatal period of life yet to pass through.

TABLE showing the Number of Male and Female Children, Dead and Alive, of thirteen Women taken indiscriminately from the village of Tihorewaru with the probable Age of each, the Tribe of the Female and Husband, with the Degree of Consanguinity.

Children Alive.		Children Dead.		Tribe of Female.	Tribe of Husband.	Relationship (Con- sanguinity).	Probable Age of Woman.
Male.	Female	Male.	Female				
1	—	6	—	Ngatitipa	Ngatitipa	{ First cousin, one removed	} 33
2	2	2	1	“	“		
1	1	1	1	“	“	“	26
—	1	—	1	“	“	“	25
1	2	2	3	Ngatiwhatua	Ngatiuhakaue	None	35
1	2	3	—	Te Kawerau	Taranaki	“	35
3	1	2	1	Te Watuhuhi	Te Watuhuhi	First cousin	35
3	1	2	3	Ngatikahu	Ngatirare	None	35
1	2	2	2	Ngatitahinga	Ngatitipa	Distant	45
—	1	—	1	Ngatitipa	“	“	38*
2	—	1	2	“	Te Maungaunga	“	30
—	2	1	—	Ngatimaniapoto	Ngatitipa	None	46
3	3	3	3	Ngatiruru	“	“	50
18	18	25	18				

\* Has four half-castes alive.

*Comparison of progress of Coloured portion of the Population of New Zealand, with that of the White Population of the United States.*

“Reference has been made to the United States for the establishment of the law which would regulate the increase of the human race under the most favourable circumstances, because none of the checks which exist in countries of ancient civilization and circum-

scribed limits have as yet much force there in resisting the natural tendency of mankind to increase. Moreover, there is a remarkable analogy of physical conditions between the inhabitants of North America and the people of this country. *A similar abundance of fertile soil, extreme facility in obtaining the necessities of existence, and a climate of even greater salubrity, place the aboriginal inhabitants of New Zealand in circumstances of similar advantage for developing to the utmost the powers of rapid increase possessed by the human race generally.* It is unnecessary to refer to the checks which operate so powerfully in retarding the quick increase of population in countries where the difficulty of procuring the necessities of life compel prudence, or where the narrow limits of cultivatable soil render great advance impossible, as none of these checks can have power to exercise any such retarding influence in New Zealand.

“Instead, however, of finding a rate of increase in the aboriginal population similar to or approaching that of the United States, viz., about 35 per cent. on the average for every ten years during the years mentioned, the foregoing tables show that the population referred to therein decreased at the rate of 19·42 per cent. in the fourteen years, or nearly one-fifth of the total numbers disappeared during that period. The average loss per annum is 1·38, or above  $1\frac{1}{3}$  per cent. If we deduct 5·52, the percentage rate of decrease for the uneven four years from 1,942, the percentage rate of decrease for fourteen years (a process not strictly, for the law of increase being in a geometrical progression the decrease should be similarly calculated), we have 13·90 the percentage rate of decrease for a period of ten years.

“The following table exhibits the percentage of the population in the countries named, that has occurred in each decennary or other period stated. The figures relating to New Zealand are taken from the statistics of New Zealand compiled by Dr. Bennett, and published by the Government, in 1858.



TABLE of progress of Population in certain Countries.

COUNTRY.	Ten Years ended				The Year 1856.	Average per Cent. increase in 10 Years.	Remarks.
	1811.	1821.	1831.	1841.			
	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.	
England .....	14.50	18.05	16.24	14.5	—	15.82	—
Wales .....	12.97	17.27	12.36	13.	—	13.9	—
Scotland .....	12.92	15.93	13.	10.8	—	13.16	—
Ireland.....	—	—	14.19	—	—	14.19	—
United States .....	36.	34.1	33.5	32.6	—	34.05	—
Auckland province ....	—	—	—	—	23.72	237.2	} Deducting excess of immigrants over emigrants.
Wellington „ ....	—	—	—	—	11.79	117.9	
Nelson „ ....	—	—	—	—	6.4	64.	
Otago „ ....	—	—	—	—	13.14	131.4	
New Plymouth „ ...	—	—	—	—	17.74	177.4	} Not deducting ditto
Canterbury „ ...	—	—	—	—	15.2	152.	
Average of New Zealand white population .....	—	—	—	—	—	146.6	—
Coloured population, decrease ....	—	—	—	—	—	13.9	—

*Remarkable Increase of the White Population of New Zealand.*

“The excess of immigration from the provinces of New Plymouth and Canterbury is not deducted in the above table, as the New Zealand statistics are incomplete in this particular.

“The result of this table is, to show that that the rate of greatest increase in the amount of population, under favourable circumstances, according to the general law deduced by Mr. Malthus, is far exceeded by the wonderful advance of the white population of this country.

“It is difficult, however, to reconcile the statistics quoted with others in the abstract of 1858. For example, the number of births in the province of Auckland for the year cited (1856) is stated to be 486, and the number of deaths 163, leaving the surplus in favour of increase of 323. This supply accounts for a very small proportion of the increase to the general population; and as the excess of immigration over emigration for the same year is only 375, we have accounted for only 618, whereas the actual increase in numbers in the year appears to be 3,244. It is not evident from what source the large balance unaccounted for, viz., 2,546, can have been drawn.

“Whether the census of 1855 is defective, or that of 1856 excessive, or whether a much larger amount of the increase is due to an irregular immigration of which no account can be taken, is a question the discussion of which is not within the intention of this paper.

“The very high rates of increase stated for the white portion of the population appear in strong contrast with the actual and large decrease which appears to be the condition of the coloured portion.

The regular decrease in the rate of increment of population in the limited States shows the certain effects of the gradual operation of the checks to multiplication to which a country is subject as it becomes more thickly peopled, and room for expansion therein more restricted."

*Relation of the Sexes.*

"The following table will afford the means of comparing the *proportion between the sexes* which exists among the aboriginal inhabitants of this country with that obtained in other countries whose populations are increasing. The figures relating to Great Britain and Ireland are taken from the Parliamentary Abstract of Population Returns for 1831; those relating to other countries from Mr. Porter's 'Progress of the Nation;' and those relating to the white population of New Zealand from the Abstract of 1858.

COUNTRY.	Numbers.		Centesimal Parts.		Centesimal Excess.	
	Males.	Females.	Males.	Females.	Males.	Females.
			Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.
England .....	6,376,627	6,714,378	48·71	51·29	—	2·58
Wales .....	394,563	411,619	48·94	51·06	—	2·12
Scotland .....	1,114,816	1,250,298	47·14	52·86	—	5·72
Army, Navy, &c. ....	277,017	—	—	—	—	—
Great Britain (including army, &c.)	8,163,023	8,376,295	49·36	50·64	—	1·28
Ireland .....	3,794,850	3,972,521	48·85	51·15	—	2·3
Guernsey .....	11,983	14,145	45·86	54·14	—	8·28
Jersey .....	17,006	19,576	46·49	53·51	—	7·02
Man .....	19,560	21,440	47·71	52·29	—	4·58
United Kingdom .....	12,006,452	12,403,977	49·18	50·82	—	1·64
France .....	—	—	48·94	51·06	—	2·12
Spain (in 1803) .....	—	—	49·72	50·28	—	·56
United States (in 1820), free whites	3,995,053	3,866,657	50·82	49·18	1·64	—
Auckland (1856) .....	8,531	6,804	55·64	44·36	11·28	—
New Plymouth .....	1,334	1,144	54·19	45·81	8·38	—
Wellington .....	5,781	4,471	56·38	43·62	12·76	—
Nelson .....	4,048	3,461	53·91	46·09	7·82	—
Canterbury .....	3,552	2,608	57·66	42·34	15·32	—
Otago .....	2,100	1,696	55·32	44·68	10·64	—
New Zealand, white population .....	25,356	20,184	55·51	44·49	11·02	—
„ coloured (examined) .....	753	616	55·	45·	10·	—
„ „ (total) ....	31,667	24,303	56·49	43·51	12·98	—

"On reference to that part of the New Zealand statistics which shows the *emigration* and *immigration* there appears a very large gain to the male portion of the population relatively to the female portion, resulting from the constant operation of those processes, amply sufficient to account for the irregular disproportion between the

COUNTRIES.	One Death in	One Birth in
England and Wales.....	59	34
Sweden and Denmark.....	48	31½
Holland and Belgium.....	43	30
France.....	40	32·4
United States.....	37	19
Wurtemberg.....	33	27·1
New Spain.....	30	18
Auckland, (1856).....	94·08	31·55
New Plymouth, „.....	177·70	20·39
Wellington, „.....	105·69	25·18
Nelson „.....	125·15	28·33
Canterbury „.....	116·22	21·38
Otago „.....	199·78	24·97
New Zealand, <i>white</i> population....	136·44	25·30
„ <i>coloured</i> „.....	33·04	67·13

“The proportionate number of children born cannot be taken (alone) as a test of the condition of the people. It is well known that in climates where the waste of human life is excessive, from the combined causes of disease and poverty affecting the mass of the inhabitants, the number of births is proportionately greater than is experienced in communities more favourably circumstanced. Frequently, indeed almost always, in old settled countries, the proportionate number of births decreases with the advance of civilization, and the more general diffusion of the conveniences and luxuries of life. In fact, the population does not so much increase because many are born as because few die.’—‘Progress of the Nation.’

“If, then, the number of children under the age of 14 years alive at any given period be taken at one-half of those born, the relative annual number of births among the Coloured population will be augmented to one in 33·56, and the relative annual number of deaths to one in 22·14; giving a more healthy appearance to the statistics, although displaying a rate of mortality nearly half as much again as that existing in the tropical country of New Spain, with a trifle more than half the births. Compared with the white population of this country the contrast is still more striking; the former showing nearly one and a-half times the relative number of births, and considerably less than one-sixth the relative number of deaths.”

#### *Relative Numbers of each Sex Born.*

“Although it has been previously established as a natural law that at any given time in a population in a normal condition and unaffected by emigration or immigration there will be an excess of females, yet it also appears that the *number of males annually born is larger than that of the females.*

“The following table exhibits the number of registered births in England and Wales, and New Zealand, during the respective years mentioned.



sexes which the above table shows to exist among the white portion of the population of New Zealand. The slight disproportion in the United States may also be attributed to the same cause.

"It seems, therefore, to be a natural law, that a population in a healthy state, and not influenced by immigration, should possess a slight excess of females. Tested by this rule, the coloured portion of the population displays a remarkably abnormal condition."

### *Tests of Increase of Population.*

"Any accelerated increase of a population must result (excluding immigration), either from an increased proportion of births, that is, births calculated with relation to the numbers of the people, or to a diminished proportion of deaths, that is, to the more tardy passing away of a generation; and an ordinary increase must result from a regular addition to the population of births more than compensating for the loss sustained by deaths, and conversely.

"The number of children who have been born and have died between 1844 and 1858 does not appear in the tables, nor can it be easily ascertained. Judging, however, from the facts, the number who have died cannot be less than a number equal to those who have lived. That this estimate is moderate may be learnt from the following facts. In Saxony, one-half the children born die under 14 years of age. From Mr. Rickman's Tables of 1831, we learn that of 3,938,496 persons buried in England and Wales during the 18 years from 1813 to 1830, there died under the age of 14 of every thousand males 483, and every thousand females 424.

"We should expect to find, then, that the Maori population would exhibit a greater mortality, and a compensating superabundance of births, relatively to the total number of the people, than are found to obtain in countries of old settlement and more advanced social habits."

### *Proportions of Births and Deaths.*

"The following statement of the annual proportion of births and deaths relatively to the whole population, in the different countries named, will afford a view of the comparative mortality and reproduction therein. The figures relating to the European countries were communicated by Sir Francis D'Ivernois to Mr. Rickman, the compiler of the Imperial Population Abstract above referred to; those relating to New Spain are taken from Mr. Humboldt's account of that country.

"The proportions of the *Births* and *Deaths* among the coloured portion of the population of New Zealand are calculated from the tables contained in the previous pages of this memorandum, and will, perhaps, be thought inapplicable to the circumstances of the people at large. In case a higher value is attached to the information, which, although gained concerning a portion only of the population, is perfectly accurate as far as it goes, it will be well to correct an error which is in reality contained in the above figures, although it is one which, with the present information, cannot be perfectly removed.

COUNTRY.	Year.	Males.	Females.	<i>Excess of Males.</i>
		No.	No.	No.
England and Wales .....	1810	152,591	146,262	6,329
„ .....	1815	176,233	168,698	7,535
„ .....	1820	176,311	167,349	8,962
„ .....	1825	192,003	183,050	8,953
„ .....	1830	194,200	187,860	6,340
New Zealand .....	1855	766	694	72
„ .....	1856	904	818	86

*Produce of each Sexual Union.*

“To estimate the prolificness of marriages, or sexual unions amongst the Maories is, from the irregular habits of the people, an impossibility; and it would be very difficult to attain to even an approximation of the average productiveness of each female.

“The most commonly actuating motive for the dissolution of marriages or unions is the failure of issue. The desire of children is very great amongst the Maori women. One connection, however, is no sooner severed than another is formed; indeed, frequently the dissolution is caused by foregone preference for another mate.

“It may therefore be considered that the knowledge of the prolificness of each female will, for the purposes of these researches, be tantamount to the knowledge of the prolificness of each marriage.

*Diminution of the Maori Population.*

“Generally imperfect as the statistical knowledge relating to the aboriginal population of New Zealand confessedly is, or where perfect, embracing such a limited portion of the people, and so inconsiderable an extent of the country, as scarcely to afford certain basis whence to draw perfectly reliable influences applicable to the whole race, it is, notwithstanding, suggested that the foregoing calculations are of a character, and the information on which they are grounded are of sufficient value to afford certain evidence that the numbers of the people are diminishing, and must continue to diminish until the causes of the singular characteristics are discovered and removed. Indeed, in every tribe in which a minute investigation has been undertaken, and a comparison instituted between a population existing in 1844 and the remnant of that population in 1858, increased by the births that have been produced thereby during the interval, the results have been the same in character, differing from each other only in the rate of loss. Of the tribes thus experimentally taken as examples some reside on the sea-shore, others 10 and 20 miles therefrom, on the borders of the Waikato river; others again in the inland plains about Lake Waikari, and the fertile banks of the Waipa, and the wheat-producing plateau of Rangiaohia have furnished other instances, all showing a similar result, and all manifesting the existence of the same abnormal conditions. The peculiar characteristics of want of fecundity of the females, extraordinary inequality of the sexes among the adult population in a directly



inverse order to that obtaining in other countries not influenced by immigration, the extreme mortality among the children, the great paucity of births, together with a rate of mortality of both adults and non-adults far higher than any average known in temperate climates, must tend to produce a conviction in the mind, that so long as so many and such powerful causes antagonistic to increase of population exist, and simultaneously operate, any result except a decrease is impossible. That these peculiarities are not local is proved by the fact that the exemplar tribes reside, in some cases, above 100 miles apart, subsisting mainly on different food, and engaged comparatively in different pursuits. Nor, indeed, is anything more striking in the contemplation of the present aspect of the Maori population than the fact, that under various circumstances, engaged in different employments, in localities of widely different physical character, the manifestations are so generally similar."

#### *Numbers of People in Future Years.*

"Notwithstanding that the decline of the numbers of the people appears at the present rate of decrease to be very rapid, there is reason to fear that a population which has once reached such a decrepitude as that exhibited by the Maori inhabitants of this country will, from causes strictly intrinsic, proceed to its final catastrophe at a greatly accelerated pace, unless, indeed, the causes of decay be ascertained and removed. Moreover, the history of the relations of the white with the coloured races in other countries where they have come into contiguity must suggest the apprehension that when the relative numbers of each become such as to banish the necessity for respect and caution in the conduct of the former to the latter, other causes of diminution will begin to operate, the ultimate result of which will be the speedy obliteration of the coloured race from the list of peoples."

#### *Time of commencement of Causes of Decrease.*

"The causes which have induced this singular retrograde movement in the numbers of the people seem to be of *comparatively recent operation*. It is nineteen years since Bishop Broughton noticed the gradual depopulation of New Zealand, and inquired into its causes; but it is manifest that his lordship's opinion was founded in nothing more trustworthy than mere supposition, and perhaps the casual testimony of those most acquainted with the people. The actual numbers of the sexes of the adults in 1844 preponderate in favour of the males, and it will be observed that the abnormal proportions had then become more marked, as regards the non-adults. But the adult population in 1844 must have lived in 1830, and the majority of them would have been adult in that year, and have existed, in the prime of life, during the preceding decade. These had passed through the disastrous period of the Ngapuhi wars of Hika; and the immense losses which were then sustained, and which would affect the males in greater proportion than the females, would increase the singularity of this condition, did not the large number of female children who are sacrificed during the troublous times of



the early part of this century, perhaps balance the losses which the males sustained by war. That the consumption of human life in these was exceedingly great, not relatively to the numbers of the people only, but actually, may be gathered from the fact that the siege and capture of Matakītaki, on the Waipa, is believed to have cost 2,000 lives. Of these a great majority were males, the females being for the most part kept as prisoners. On the other hand, the custom of infanticide was very extensive, and chiefly affected the females. A mother flying with her friends from the pursuit of the enemy killed her female child because it encumbered her flight, but she usually submitted to the inconvenience rather than destroy the male child, which public opinion had decided should be carefully preserved, to augment in future years the strength, and contribute to the security, of the community, or to revenge the insults to which his parents had been subjected. This custom not only influenced the numbers of the non-adults of 1814 but had previously operated on the population then adult.

“It is, however, at this time, impossible to say whether war most diminished the number of the males or infanticide the number of the females. Although it is possible that the disproportion of the sexes actually born may have commenced at an earlier period than 1830, it is probable that the loss to the males by war was amply compensated by the diminution of the numbers of the females from infanticide. One fact is certain, although the exact period of the commencement of this singular condition of the disproportion of the sexes cannot be demonstratively fixed, it is quite clear that this cause of decrease was in full operation during the years 1830 to 1844, when the non-adult population of 1844 was being produced, and has continued with great energy up to the present time.”

*Maori Opinions on the Date of commencement of Decrease.*

“The unfruitfulness of women is likewise a recent characteristic, if the Maories are to be believed when speaking on this subject. And this must be so, otherwise it is impossible to account for the great increase of the population during the twenty generations which the Maories have passed through in this country, an increase which has taken place notwithstanding the considerable expenditure of life caused by perpetual wars, and in spite of the constant operations of numerous other influences calculated to check the increase of numbers and shorten the duration of life. The ‘rude forefathers of the hamlet,’ were, according to the universal consent of their existing representatives, blessed with prolific wives, and not seldom with several, all producing simultaneously. Absence of issue from a union was not indeed unknown in former times, but the desire of children was always strong in the breast of the Maori female, and she was usually held in respect according to the number of children with which she strengthened her tribe.

“The ancient remedy for absence of children, was wont to be a solitary resort by the unfortunate woman to the mountains, and urgent invocations in a loud voice to those particular immortal gods who were supposed to preside over these matters, a proceeding

which, it will scarcely be wondered at, was sometimes followed by the desired result.

"Similarly the great mortality of children and the alleged abbreviation of life among adults is affirmed to be of recent commencement. The popular belief is, that in former times the great majority of the children born survived to marry, and the married were all distinguished for unbroken health, and for a physical stature and strength compared with which the attributes of the present generation appear very insignificant indeed. Doubtless these ideas, common more or less to all humanity, may be traced to the same feeling of affectionate regard for bygone days which causes Englishmen still to regret the good days which existed in 'merrie England in the olden time;' those 'days of cottier cultivation when,' as the poet ignorantly laments, 'every rood of ground maintained its man.'"

### *Causes of Decrease.*

"The *causes* of the decrease of the population are adverted to by several of the enumerators, and, as appears to be the fate of every affair connected with the Maories, *the opinions are various* and conflicting. As the subject of the causes of the decrease is intimately connected with that of the social condition of the people, the extracts now made will embrace the remarks of the enumerators on that subject also.

"Opinions of enumerators thereon:—

"Mr. White: 'I regret that I cannot report any very marked improvement in their condition, except in a few instances in farming; but there is a marked decrease of quarrels amongst themselves, on their old prejudices and customs, and a general desire of improvement, which they want the energy to carry out. From observation, I believe the natives of the north to be more *indolent* than those of other portions of New Zealand, and also the most peaceful and loyal.'

"Mr. Kemp, after speaking of 'a perceptible increase,' as before quoted, says, 'the natives attribute this in a great measure to the disuse of mercurial and other strong medicines, while at the same time, their diet, clothing, and employment, have approached more nearly to that of the Europeans. 2ndly, In their general social state, it will be gratifying to the Government to find, that they are in the enjoyment of European comforts.'

"Mr. Halse: 'For nearly four years, they' (the Taranaki natives), 'have been engaged in a struggle in asserting their claims to the land, which has always been a subject of *contention* with them, and mortality from this cause has been considerable. Not that many natives have fallen, but the harassing nature of the struggle, the misery and privations undergone from the confinement of fortified pas, all tend to shorten life. To this is to be added the mortality among the children and youth of both sexes. As a rule, medical aid is declined by them, and those who enter the colonial hospital, either go when their diseases are far advanced, or refuse to remain sufficiently long there to benefit by the treatment and change.

"An increasing taste for *spirit drinking* is prevalent amongst



both sexes, but more particularly with the young, who resort to all kinds of devices to obtain it. The difficulty of checking this by information, arises from the aversion of the natives to give evidence. The supplies are understood to be usually obtained through a third party, without the knowledge of the landlord, and drinking is likewise indulged in at the native pas.'

"Rev. C. H. Snackenbergh: 'The greatest cause of decrease, I believe, is *uncleanness*, inwardly and outwardly, in *diet, dress, and habitation, in body and mind, in all their thoughts, words, and actions.*'

"Mr. Fenton: 'In my opinion *the social condition of the Maories is inferior to what it was five years ago.* Their houses are worse, their cultivations more neglected, and their mode of living not improved. The mills in many places have not run for some time, and the poverty of the people generally is extreme.

"'At the same time, there has appeared a remarkable activity of mind, directed to the development of political ideas, and the establishment of a system of government, which will be productive of good or ill, according to the channel in which it permanently directs itself. Employment of this intellectual energy is now a political necessity, for the Maories are utterly unable, without direction, to found and continue any system which will supply rules of action calculated to make them good citizens and useful colonists.'

"Mr. Heaphy enters at length into the question of the decrease of the people, and suggests many causes. His remarks are valuable and suggestive. He says, "The tribes which I refer to being those which are in most frequent communication with the largest European settlement in New Zealand, I was particular in examining whether the causes of decrease were connected with the neighbourhood of Europeans.

"'The cohabitation of the Maori women with white settlers, and their habits of prostitution in Auckland, must have some effect, undoubtedly, in keeping down the numbers, but it is quite inadequate, as a cause, for the general diminution, which is everywhere apparent. From the proportionate scarcity of women about the Thames, Coromandel, and Waiheke districts, it became interesting to ascertain whether their paucity of numbers in the native villages arose from their congregation in Auckland. The returns, however, show that there are at the most but twenty-three women withdrawn from the native settlements to the town; a number entirely inadequate to account for the scarcity of women and children on the coast.

"'Half-caste children being included in the returns, it becomes evident that cohabitation with the whites is not a sufficient cause for the diminution.

"'Of diseases introduced amongst aboriginal races by contact with Europeans, the small-pox, syphilis, and measles are those which have most depopulated. But in New Zealand the small-pox has not appeared; the syphilis assumes, in the natives, so mild a form, and is so easily eradicated, that the writer never heard of a fatal case; and the measles, which have once passed over this province, were not more marked in their effects upon the natives than upon the whites. Dr. McGauran states, that from his long experience in the Colony,



and connection with the hospital, he is convinced that diseases contracted by Maories from Europeans do not, in the former, assume a violent or dangerous character. The native constitution appears to have the power of throwing off syphilitic disorders with but slight medical aid, and secondary symptoms are almost unknown. Scrofulous diseases, hereditary in the race, appear, on the other hand, to be of a most fatal character, manifesting itself in a great variety of forms. Pulmonary disease is the chief cause of mortality.

“Of the other causes, intemperance is generally the most fatal amongst the natives of countries colonized, but with the Maories, intoxication, though an increasing, is only an *occasional*, not an habitual excess, and can have but a very slight share in contributing to the decrease.’”

“The constitutional unproductiveness of the women appears to be the chief cause of the want of numbers. The habits of the women in following laborious pursuits, and especially in carrying heavy loads, not only shortens life, but in a great degree abridges that period over which they may become mothers.

“European clothing, heaped on the native one day to be cast aside the next, and replaced by a thin blanket or sheet, must tend to the increase of lung disease.

“Abortion, produced by artificial means, appears to be far from uncommon.

“While aware of our duty in administering to the well-being of the Maori, and guarding him against those diseases and evils that must tend to depopulate, one cannot overcome the conviction that the race is ‘run out,’ and that after two or three generations a remnant only will represent the people. Has isolation been the cause? I am not aware that the fact of New Zealand being the (populated) island most remote in the world from any other populated country, has attracted the attention of naturalists. May an infusion of fresh blood not be necessary to restore prolificacy? Amongst the Islands of Melanesia, where communication from group is easy, the villages teem with children, and young mothers, with several young children hanging about them, are met continually, notwithstanding the effects of disease and the insecurity of perpetual warfare.

“When native women, after an irregular life in Auckland of a year or two, cohabit regularly with a white man, large half-caste families are the result. On the Coromandel coast the children of a few white settlers exceed in number those of the Maori tribe amongst which they live.

“An opinion obtains among the faculty in Europe that the reproductive functions are materially injured by the continual use of *tobacco*. Be this established or otherwise, there can be no doubt that the constant habit of smoking in young girls must be injurious, in a high degree, to the Maori population.

“Feeding infants, at the time of their weaning, upon decomposing potatoes and Indian corn, and upon heavy and indigestible flour-cake (a universal practice among them), must be very prejudicial.”

*Ordinary Checks on Increase of Populations.*

"The difficulty of procuring in adequate plenty the necessaries of life in tolerably peopled countries has two effects. It either indisposes the greater number of people to marry early, and this effect writers on population call the prudential or preventive check; or it disables them from rearing in health the greatest families, and this is named the positive check. It is obvious that *neither of these checks, whose joint operation is so powerful an obstacle to increase in Europe, and all well-peopled countries, can have any effect in New Zealand as regards the aborigines.* Possessing abundance of good land, with ready markets for the disposal of agricultural produce and the purchase of clothing, and other appliances necessary to comfort and health, and easy means of transit to and from the markets, neither of these checks can exercise any retarding influence to the rapid growth of the people. Moreover, inhabiting a country whose climate is salubrious beyond a parallel, there exists no physical reason why the Maories should not exhibit an increase of their numbers at the highest rate of which the human race, under the most favourable circumstances, is capable."

*Theory of Disappearance of Coloured Races before the White Race.*

"The theory that the coloured race must fade away before the white race can receive little confirmation from the present decay of this population, for the great evil existed, as we have seen, in full force during the decade of years ending 1840, a period antecedent to the colonization of the country, when the whites were insignificant in number and sparsely located.

"At Rangiaohia, which has for many years been the residence of more Europeans than are or ever have been contained in the whole of the remaining part of the Waikato district, the decrease of the population is 33 per cent. below the general average.

"However, the theory has never been satisfactorily established as a law of nature. The idea that the inferior race is ordained by some mysterious but certain natural law to dwindle and fade away in the presence of the race of superior physical endurance and greater intellectual energy, like the low vegetation in the neighbourhood of the baleful upas tree, receives little confirmation from facts. That the red races of North America have gradually receded before the encroaching perseverance of the white race, and have, in many instances, entirely disappeared, is not to be held to be the consequence of the simple presence of the latter, but it is to be attributed, not only to the extermination over extensive districts of the game which forms the principal article of subsistence to a nation of hunters, but in a greater degree to the destructive effects of intemperance, European diseases, and exterminating wars waged not only between the races, but among themselves. In localities where these causes of depopulation have had no, or only a partial operation, or where the people have been induced to adopt the habits of civilization, the North American Indians have increased, and show every sign of a healthy growth and prolonged existence."



*Centesimal proportion of the Sexes of the Non-Adult Population.*

DATE.	Males.	Females.	Total.
	Pr. cnt.	Pr. cnt.	Pr. cnt.
In 1844 .....	59·15	40·85	100
„ 1858 .....	55·63	44·37	100

*Abstraction of Females by the Whites.*

“Nor can the number of females abstracted from the Maori population to form unions with males of the white race be assigned as a cause of the decrease. The total amount thus taken is quite insignificant compared with the total number of the females. Thus we find that in the town of Auckland 23 women only are thus absorbed, some of whom are half-castes. Out of the population contained in Table I, containing in 1844, 788 females, and in 1858, 616 females, eight have been abstracted, of whom two re-appear amongst the 23 resident in Auckland.

“Moreover, with reference to this particular interference, compensation is to a great extent afforded by the half-caste females who return to the people of their mothers, and form alliances which produce offspring more than sufficient to replace the loss originally sustained.”

*Theory of Barrenness of Coloured Female, after Sexual Intercourse with White Male.*

“The theory of M. Strzelecki, that a coloured female having had sexual intercourse with a white is thenceforth incapable of propagating her own race is quite false as regards the coloured race under consideration. Several instances appear in Table I, in which females have had children by males of both races, and as a rule, the production of the Maori husband has been subsequent to the birth of children by the European husband. Instances even are not unfrequent of women, who having for years indulged in the towns in that irregular mercenary intercourse which is supposed to be utterly destructive to the powers of reproduction, have returned to their native valleys and given proof that their procreative functions have not suffered material injury. Doubtless, the Maori population, to a certain extent, suffers by the necessity which seems to have been imposed by usage among them, of yielding the supply of females who are to minister to the irregular appetites of the town populations; but the numbers affected by this drain are so small, being only 23 for Auckland, the largest of the European settlements, that a sensible check to population can scarcely be attributed to this cause, even if the future fecundity of these females were utterly destroyed, which is not the case.”



*European Diseases.*

“ If we seek amongst the diseases introduced by the whites for the cause of decrease which has operated for so many years back, we shall be equally dissatisfied with any or all of these checks to population, as an explanation of the phenomenon. Dr. Thompson, of Her Majesty’s 58th Regiment, an indefatigable inquirer into the physical characteristics and condition of the aboriginal race, and whose opportunities of observation cause much value to attach to his opinion, has instituted researches into this branch of our subject, and has recorded much important information, to which reference may be had.

“ Any remarks which might be made on this subject can have little force from any other than a professional man. The statement of Mr. Heaphy, and the opinion of Dr. McGauran, quoted *supra*, entirely agree with the observation of the writer, with the exception that effects of the measles, which swept through the country in 1853, appear to be much underrated; and the supposition of the existence of the practice of causing abortion by artificial means, is quite incorrect. Neither this crime, nor the cognate one of infanticide, is more general among the Maories, or has been for many years, than amongst the Europeans; on the contrary, the desire for living offspring is very great.

“ The small-pox, which was so terrible a scourge to the nations of Europe before the discovery of vaccination, and which nearly destroyed many of the hunting tribes of North America, has not made its appearance in New Zealand, nor has any other European disease produced any effects more marked, than those which usually attend the visitation of certain epidemics in Europe.

“ Nor, indeed, is it among the causes of mortality of the adults that the reason for the decrease of the population is to be sought, so much as in the want of fecundity in the females, and the extreme unhealthiness of the children actually born. As has been previously shown, the average number of deaths in relation to the total population, although very high, is not so remarkable as the relative paucity of surviving births. Amongst the Maories, unions between the sexes commence at a very early period, and, although the average duration of life is unknown, or the average expectation of life at any period of it, the great number of men still living who can speak of and describe events that happened thirty years ago, in which they moved and took part as the mature adults of that day, must lead us to suppose that the Maori enjoys, in common with the European, the advantage which a temperate climate possesses over a tropical one in the prolongation of human life when unchecked by more powerful antagonistic influences.”

*Use of Spirituous Liquors.*

“ The remarks of Mr. Heaphy leave little unsaid in the subject of intemperance. The use of spirituous liquors *may* have exercised some influence prejudicial to the increase of the people, especially amongst women in a state of pregnancy, but this is not *known* to be the case. In the great district of the Waikato and its tributaries,

whence the information forming the basis of the preceding calculations has been derived, the quantity of spirits consumed has been small, and has not produced the slightest effect, either on the increase or the habits of the people. In fact, while the total adult male population has decreased at a rate of 17·34 per cent., and in some cases at rates above 30 per cent., the particular adult male population of Rangiaohia, has suffered a diminution of only 2·34 per cent. Yet more spirits have been consumed in that village than in the whole of Waikato put together. I am informed by Mr. Carleton, the Member of the House of Representatives for the Bay of Islands, that the consumption of spirits in that district, which was at one time very great, has materially diminished during the last two years, although the same facilities for obtaining spirits exist as heretofore. *The fact is, that the use of spirits has had no effect upon the numbers of the people. The spirit drinker is the exception, and the opportunities of procuring the stimulant in quantities sufficient to operate injuriously on the whole race, do not exist.*"

#### *Use of Tobacco.*

"The opinion which the faculty entertain as to the material injury which the reproductive functions suffer from the continued use of tobacco must be entitled to respect, but it is somewhat remarkable that the aboriginal race of New Zealand should be held to be the only one that exhibits, on an extensive scale, clear proofs of the theory. The Maori women cohabiting with Europeans consume more tobacco than those remaining in the native settlements, simply because they can procure more, yet their production of children is increased in a similar ratio. Families of six, nine, and even thirteen half-caste children are met with, forming living evidence of the fallacy of this doctrine, at least as applicable to this country.

"It appears, then, that it cannot be directly proved that the causes of the decrease of the Maori race arise from the contiguity of the Europeans, nor from any diseases introduced by, or habits contracted from, them.

"Still, many facts appear on record which tend to show that by some mysterious law of nature the intercourse of persons may cause disease, even where both parties are in perfect health, more especially in cases where the parties are of entirely distinct race.

"The following observations, extracted from 'Darwin's Naturalist's Voyage' (Beagle), will elucidate my meaning.

"The Rev. J. Williams, in his interesting work 'Narrative of Missionary Enterprise,' says: 'The first intercourse between natives and Europeans is invariably attended with the introduction of fever, dysentery, or some other disease, which carries off numbers of the people.' Again, he affirms, 'It is certainly a fact, which cannot be controverted, that most of the diseases which have raged in these islands during my residence here have been introduced by ships; and what renders the fact more remarkable is, that there might be no appearance of disease among the crew of the ship which conveyed this destructive importation.

"This statement is not so extraordinary as at first appears, for several cases are recorded of the most malignant fevers having broken



out, although the parties themselves who were the causes were not afflicted. In the early part of the reign of George III, a prisoner who had been confined in a dungeon was taken in a coach with four constables before a magistrate, and although the man himself was not ill, the four constables died from a short putrid fever, but the contagion extended to no others. From these facts it would almost appear that the effluvium of one set of men shut up for some time together was poisonous when inhaled by others, and possibly more so if the men be of different races.

“ ‘ Captain Beechy (ch. 4, vol. i), states that the inhabitants of Pitcairn’s Island are firmly convinced that after the arrival of every ship they suffer from cutaneous and other disorders. He attributes this to the change of diet during the time of the visit. Dr. McCulloch (‘ Western Isles,’ vol. ii, p. 32), says, ‘ it is asserted that on the arrival of a stranger (at St. Kilda), all the inhabitants, in the common phraseology, catch a cold. In Vancouver’s voyage there is a somewhat similar statement with regard to Otaheiti. Dr. Dieffenbach states, that the same fact is universally believed by the inhabitants of the Chatham Islands, and in part of New Zealand. It is impossible that such a belief should have become universal in the northern hemisphere, at the Antipodes, and in the Pacific, without some good foundation.’ (‘ Naturalists’ Voyage,’ p. 436.) Original note to the above.

“ Captain Beechey’s statement about Pitcairn’s Island is corroborated by a gentleman of my acquaintance, who, with four others, passed three weeks there in the year 1850. He received letters from the island shortly after his departure, stating that the people had suffered severely from influenza. But there had been no change of diet during the time of the visit.

“ The celebrated traveller, Dr. Livingstone, makes a similar observation. He says, ‘ The Boers, under Potgeiter, visited Delgoa Bay for the first time about ten years ago, in order to secure a port on the east coast for their Republic. They had come from a part of the interior where the disease called croup occasionally prevails. There was no appearance of disease amongst them at the period of their visit, but the Portuguese inhabitants of that bay found that they had left it among them, and several adults were cut off by a form of the complaint called *laryngismus stridulus*, the disease of which the great Washington died. Similar cases have occurred in the South Sea Islands. Ships have left diseases, from which no one on board was suffering at the time of their visit.’—(‘ Missionary Travels and Researches in South Africa,’ by David Livingstone, LL.D., D.C.L., p. 649, ed. 1857.)”

#### *Maori Opinions on Causes of Decrease.*

“ The Maories themselves attribute their decadence, in some measure, to the introduction of new food and clothing, and the attendant change of habits. They affirm, that in former times, when their custom was to walk abroad with little clothing, and to pursue their ordinary occupations in a state of almost nudity, their skins thickened and became insensible to the effects of heat or cold; and moreover, that in those happy days, when fern root and the root of



wild convolvulus formed the staple of their diet, their physical strength and endurance was great, their health unbroken, and their appetite much more worthy of notice than at present. This latter manifestation, though difficult of belief, may be true, and in fact, the direct consequence of their insufficient clothing, and the greater degree of cold to which they were subjected. Baron Liebig, in his '*Animal Chemistry*,' says, 'Our clothing is in reference to the temperature of the body, merely an equivalent for a certain amount of food. The more warmly we are clad, the less urgent, up to a certain point, becomes the appetite for food, because the loss of heat by cooling, and consequently the amount of heat to be supplied by food, is diminished.'

"'If we were to go naked like certain savage tribes, or if, in hunting and fishing, we were exposed to the same degree of cold as the Samoyedes, we should be able, with ease, to consume 10lbs. of fish or flesh, and perhaps a dozen tallow candles into the bargain, daily, as warmly-clad travellers have related with astonishment of these people.'

"The Maories subsist mainly on a vegetable diet, and it has been alleged that this fact will, to some extent, explain the deficiency of vigour which appears to exist in the reproductive powers of the race. Resorting again to comparisons with other countries, to ascertain the amount of respect to which this idea is entitled, we find in the life of Francis Xavier, 'The Japanese, like all other people who believe in metempsychosis, live on vegetable food.'

"We learn from returns transmitted by English Consuls in consequence of inquiries made through Lord Palmerston by the Poor Law Commissioners the following facts, relating to some of the principal countries of Europe: In Norway, 'the poor consume very simple food,—salt herrings, oatmeal porridge, potatoes, and coarse oatmeal bread, forming the principal part of their diet. Once or twice a week they may obtain a piece of bacon or salt meat, and those who live on the coast, or near to rivers or lakes, procure fresh fish.'

"In Sweden, 'agriculturists in the southern provinces live upon salt fish and potatoes; in the northern provinces porridge and rye-bread form their food. Artisans are sometimes able to procure a little meat.'

"In Denmark, 'the principal food of the labouring people is rye-bread, groats, potatoes, coffee, butter, cheese, and milk.'

"In Mecklenburg, 'with these advantages they are able to procure a sufficient quantity of good sound food, and occasionally to indulge in the use of meat, which falls to the lot of the working classes in very few of the countries on the continent of Europe.'

"In France, 'the food varies in different districts. Throughout the district called Landes the food consists in rye-bread, soup of millet, cakes made of Indian corn, now-and-then some salt provisions and vegetables,—rarely, if ever, butchers' meat. In other parts they eat wheat-bread, soup made with vegetables and a little lard or grease twice a-day, potatoes, and other vegetables, but seldom butchers' meat.'

"In England, in answer to the question, 'Could a labourer, his wife, and four children, subsist on the aggregate earnings of the

father, mother, and children, and if so, on what food?' 491 parishes replied 'with meat,' and 125 parishes, 'barely, or without meat.'

"In Ireland, the food of the labouring classes consists mainly of potatoes and milk, according to Carlton and other popular writers in that country.

"In fine, the fact that a retrograde movement in the numbers of the people had fully commenced, and had produced very sensible effects before these supposed causes of decrease came into operation, must form an insuperable obstacle to the logical maintenance of the position, that the decrease is attributable to the lack of animal food, or to the adoption of European clothing."

*Causes of Decrease sought among habits proper to the Maories.*

"If we search for the causes of the decrease of the people amongst habits which are purely internal, next in order after the depopulating intestine wars, we should probably place the frequent custom of infanticide. That this custom was a very important obstacle to the proper increase of the Maori race may be believed from the fact that the writer has met with many instances of women who have destroyed from six, and even seven children, offspring of themselves, and mostly female. However, the universal testimony of those best qualified to judge, is conclusive that this custom has for many years been almost extinct. Probably the year 1835 may be named as the period of it ceasing to exist. Rare instances have occurred since that date, but utterly insufficient in number to have any serious effect on the state of the population.

"At a somewhat later period large wars also terminated; the expeditions of the Waikato tribes against Taranki, in 1836 and 1837, and the struggle of the same great sept with Ngatiwhakaue, commencing in the year 1835 and ending in 1839, being the last undertakings of any importance. The siege and capture of Kaipata, near Rangiaohia, by the Chief, William Naylor Te Awaitaia and his confederate tribes, had proceeded these operations. The battle of Te Ihutaroa, to which reference has been previously made, and in which the Ngatitipa contested the ownership of about twenty acres of land with Ngatipou, occurred in 1846, and occasioned the death of thirty-three individuals, some of whom appear in the previous tables; but peace immediately ensued, and the effects of the contest did not extend beyond those who died in the field. The numerous petty wars which, during the past two or three years, have caused some loss to the coast tribes on both sides of the northern island have had no effect on the people of Waikato, who have been particularly the object of this inquiry."

*Promiscuous Sexual Intercourse.*

Illicit commerce between the sexes, although considerable at the present time, was much more extensive in former periods. The Maories are unanimous in representing sexual intercourse as extremely promiscuous during the times when several families inhabited one large house. Captain Cook remarked the prevalence of this vice: 'Amongst the females, chastity is lightly esteemed.'



And whatever alteration the habits of the people have lately undergone respecting this particular habit, has been for the better. Therefore, to whatever degree the fecundity of females may be affected by practices of this nature, the question of the present *decline* of numbers cannot be solved by adducing as a cause a habit which was more general during periods when the race was *increasing*.

#### *Low Social Habits.*

"The want of cleanliness, in the extended sense in which the word is used by Mr. Schackenberg, though by itself insufficient to account for the extraordinary mortality to which the New Zealanders have lately become subject, will, joined to the other habits which characterize a low state of civilization, have considerable effect in shortening the duration of human life.

"Rangiaohia presents to our notice a decrease of 13·10 per cent. on its total population as compared with 19·42, the percentage loss sustained by the total population of the district over which these inquiries have been extended, and that place has been noted as the earliest in commencing the cultivation of wheat, and adopting, as far as they have been adopted, European clothing and habits."

#### *Life prolonged, but number of Births not increased by improvement in Social Condition.*

"But it does not appear that the improvements of civilization have a similar effect upon the number of births, at least in old and well-populated countries. Thus in England:—

For the ten years ending 1811,	the <i>births</i> were one in	31½
„	„ <i>deaths</i>	„ 53¾
„	1821, <i>births</i>	„ 31¾
„	„ <i>deaths</i>	„ 60½
„	1831, <i>births</i>	„ 34½
„	„ <i>deaths</i>	„ 58½

#### *Mortality amongst Children, caused by low Social Habits and Unfit Food.*

"The proposition of Mr. Schnackenberg, taken in its extended sense, as applying to a generally low social and moral condition, appears to apply with greater force to the non-adult than to the adult members of the population. The great mortality among the youth of both sexes under the age of 14, is very great, not only relatively to the total population, but actually. Out of a total of persons of both sexes under 14 years of age in 1844, of 475 only 283 have survived to the present time, exhibiting a loss of upwards of 40 per cent. And if it be considered that to supply these 475 a number of births must have taken place of which, judging from the previous inquiries on this subject, one-half died before the enumeration, leaving 475 as the survivors, the loss to the non-adult population



appears astonishing, amounting to above 70 per cent. Of 15 children, eight male and seven female, who, at the taking of the census in 1844 were infants unnamed, and who appear in the statements as '*pepe*' or '*infant*,' only two now remain alive, one male and one female.

"There can be little doubt that unwholesome food and insufficient clothing must be much more prejudicial in their effects on the young than on those who, besides possessing the greater vitality of manhood, have proved the strength of their constitutions by living through these hardships. The great amelioration which care and attention affect in the health of the young may be gathered from a table compiled by Dr. Mitchell, with reference to the children in Christ's Hospital, and quoted by Mr. Porter in his work so often referred to.

"It will be seen from the return annexed how very small the rate of mortality has been in that establishment throughout the period referred to, viz., from 1813 to 1833. 'This circumstance shows how very instrumental in preserving life during childhood are substantial clothing, an abundance of wholesome food, good lodging, healthful exercise in the hours allowed for recreation, and immediate attention on the first appearance of sickness under the care of skilful medical men.'

PERIOD.	Average Number of Children in Christ's Hospital.	Deaths.
1814 to 1818 .....	1026	51
1819 „ 1823 .....	1038 ·6	44
1824 „ 1828 .....	1082 ·4	40
1829 „ 1833 .....	1134	36

"It thus appears that in the first five years, viz., from 1814 to 1818, the annual mortality was 1 in 100; that in the next five years, from 1819 to 1823, the rate was only 1 in 118; that in the five years from 1824 to 1828, it was further diminished to 1 in 135, and that in the last quinquennial period, the annual mortality was no greater than 1 in 157½ of the children.

"The average annual number of children in the establishment during the last three periods, embracing a duration of time of fifteen years, was 1,085; and the average annual number of deaths was 8; exhibiting an average annual mortality of 1 in 135½, or 1 in 9⅓<sup>10</sup>th for the whole period of fifteen years.

"Among the 475 Maori children who appear in the census of 1844, 192 deaths have taken place during a period of fourteen years, or, the mortality has been at the rate of 1 in 2½ for the whole period, or 1 in 34⅔ annually. An error will be apparent in this comparison, for every year as it passed by would add a certain number of these 475 children to the class of adults or persons above 14 years of age, and all the survivors are now upwards of 14. This error, however, operates in favour of the health of the Maories in the comparison,

for the ordinary mortality is much greater among persons under the age of 14 years than among the class between 14 and 28.

“The average annual number of children in the school conducted by the Rev. J. Morgan, at Otawhao, near Rangiaohia, during the period extending from 1849 to 1858 has been 54, deducting those who did not remain six months in the establishment. The total number of deaths that have occurred among these children, including those who returned to the native settlement on the approach of death, as the custom is, have been four Maori and two half-castes; total six. Thus the mortality in this establishment during the whole period of its existence has been 1 in 9, or an average annual mortality of 1 in 81.

“The average rates of annual mortality among these three classes of non-adults will thus appear:—

In Christ's Hospital,	one death annually in	135½
„ the Otawhar school,	„	81
„ the native villages,	„	34⅔

“These facts tend to show how greatly the expectation of life may be increased during the years of childhood by good lodging and abundance of wholesome food, combined with a rational mode of discipline both moral and medical. And this great improvement as regards the health of the children in the Otawhao establishment has been obtained, notwithstanding the extreme scantiness of their clothing which, especially during the winter, when the thermometer during the night frequently registers 27° and even 25° Fahrenheit, is utterly inadequate to retain the proper amount of animal heat. The only peculiarity of the food consumed by these children is, that the staple is wheat and wheaten flour instead of potatoes, and at all seasons of the year abundance of milk is supplied them.

“Had the rate of mortality which forms the rule in Mr. Morgan's school obtained amongst the children in the native settlements during the last fourteen years, the deaths between 1844 and 1858 would have been 82 instead of 192. The effect which such a beneficial change in the health of the young must have upon the movement of the entire population is too apparent to need remark.

“It will appear, then, that with the exception of the debased social habits which usually attend a low condition of civilization, the previous inquiries have failed to discover any causes whose operations have been sufficiently influenced to account for the extraordinary symptoms which have characterized the aboriginal people of this country from a period commencing about the year 1830. The causes of decrease usually assigned have been successfully investigated, and have failed to afford any satisfactory explanation of the phenomenon.”

(I.)—*Suggested Causes of Decrease: Doctrine of Special Providential Interference.*

“A doctrine has been asserted, and has found favour with some, that as nations rise and fall, and populations increase and decrease at the will of the Divine Providence, peculiar facts, such as those which form the subject of this inquiry may be simply attributed to



the exercise of such a Divine decree. It is, however, a characteristic of the plan of management under which the affairs of the world are administered, that the will of Providence is always carried into effect by ordinary means, and the most extraordinary results may be traced to the operation of simple natural causes. The laws which govern the production of the human species are, it must be admitted, very obscure, but it is not reasonable on that account to relieve ourselves from the difficulty by resorting to the doctrine of special providential interferences. Even in individual cases we may recall singular instances of eccentricity in Nature's operations with respect to reproduction, many of which are as worthy to be attributed to a suspension of Nature's laws as the present position of the Maori population.

"Thus, we read in the Greek history of the twenty daughters of Danaus, and these are matched by as many wives of another man. Bruce tells us that women in eastern countries have children only for nine years; yet how prodigiously their populations have extended. Gideon had no fewer than seventy sons by his wives, besides one by his concubine. Bruce says, 'the Imam of Sama was not an old man when I was in Arabia Felix in 1769, but he had eighty-eight children alive, of whom only fourteen were sons. The Priest of the Nile had seventy and odd children, of whom, as I remember, above fifty were daughters.' Gibbon says in his history, 'the total amount of this imperfect calculation,' (of the people of the Roman empire in the time of Claudius), 'would raise to about 120 millions of persons, a degree of population which possibly exceeds that of modern Europe.' The curious inquirer who is anxious to ascertain the increase or decrease of the population of Europe during 1,700 years must calculate whether the addition of Northern Europe is a compensation for the loss of the African and Asiatic provinces of the Roman empire. The population of England and Wales decreased during the decade of years ending 1710,—the population in 1700 being 5,134,516, and in 1710, 5,066,516.' Henry VIII had six wives and three children. Solomon had five hundred wives and one son. And among the married ecclesiastics of England the number of children born to a clerk seems to increase in an inverse ratio with the value of his living."

(II.)—*Use of Putrid Corn commenced about 1830.*

"In order to discover what the natural causes of decrease have been and are, we should, on the supposition that the retrograde change in the progress of the population commenced about the year 1830, first inquire whether any marked change took place in the habits or food of the people at about that period. And it is remarkable that about that time *the discovery of the art of manufacturing putrid corn by continued steeping in water was made.* From the date of that event this food, eaten in a state of most offensive putrescence, passed rapidly into general use, not merely as an occasional delicacy as in the case with dried sharks and other matter used as food in a semi-decayed state both here and in the Polynesian Islands, but as an universal daily staple of diet. Every Maori who has attained the age of 40 years can remember the introduction of this noxious



substance ; and it is remarkable that at Rangiaohia, where it began first to grow into disfavour, displaced by the wheat which, under the energetic encouragement of the Rev. J. Morgan, rose into notice and gradually displaced the ‘kaanga kopiro,’ the decrease of the population has been 33 per cent. below the general average.

“The date of this unhappy discovery was more perfectly fixed by an inquiry made from a female Ngapuhi slave, on whose arm was tattooed ‘J. T. (anchor) 1824.’ This record proved to have been made by a sailor with whom the woman cohabited for a short time in the Bay of Islands ; and in reply to a question, she stated that this unwholesome food was discovered and brought into use a few years after that inscription was made.

“Without attempting to ascribe any effects to the continued and large use of putrid corn as an article of food, an attempt to which neither special education nor knowledge subsequently acquired render me competent, I will simply quote from Baren Liebig’s ‘Animal Chemistry’ some observations which seem pertinent to this subject.

“By the recognition of the cause and propagation of putrefaction in complex organic atoms, the question of the nature of many contagions and miasms is rendered capable of simple solution, and is reduced to the following :—

“Do facts exist, which prove that the state of the transformation or putrefaction of a substance is propagated likewise to any parts or constituents of the living body ; that by contact with the putrefying body, a state is induced in those parts, like that in which the particles of the putrefying body themselves are ? The question must be answered decidedly in the affirmative. . . . It is a fact that the use of several kinds of food, as flesh, ham, sausages, in certain states of decomposition, is followed in healthy persons by the most dangerous symptoms, and even death.\*

\* [Mr. Hendriks has directed my attention to the opinion expressed in 1854, by Bishop Selwyn, on the ill effects which his lordship had also noticed in New Zealand as arising from the practice of eating putrid grain. The bishop’s conclusion on the future of the *Maori* population, are not however quite so gloomy as those of the enumerators on the occasion of Mr. Fenton’s inquiries. As the readers of this *Journal* will doubtless be glad to have the substance of Bishop Selwyn’s remarks preserved for reference, the annexed extract, from notes made on the occasion, are annexed.—ED. S. J.]

“At the Quarterly meeting of the Mayfair District Association of the Society for the Propagation of the Gospel, held in May, 1854, in the Curzon Schoolrooms, Market Street, Mayfair, a lecture was delivered by the Right Rev. the Lord Bishop of New Zealand, on the subject of the *Melanesian Mission*. A numerous company of ladies and gentlemen assembled on the interesting occasion. The chair was taken by the Rev. Henry Howard, Rector of St. George’s, Hanover Square, in the absence of Earl Howe, who was prevented attending by ill-health.

“The Rev. Mr. Hawkins, Minister of Curzon Chapel, having opened the proceedings by offering up prayer, proceeded to read a statement of the progress of the district branch of the Parent Society for the Propagation of the Gospel, which was established about a year ago.

“After having been introduced to the meeting by the Rev. Chairman,

“The Bishop of New Zealand commenced his address by briefly sketching the origin of the missionary work in the islands of the Pacific Ocean, where the light of the Gospel first begun to dawn at the opening of the present century. After a lengthened address, in answer to a request from the chairman,

"It is admitted that the continued use of salt meat, or inferior food, causes the most surprising change in the vital processes, and in particular, that it is a principal source of scrofula. This disease, developing itself in various forms,—tumours, tabes mesent., and consumption, and other lung diseases, besides a general prostration of vital energy, both mental and physical, has been, and is, the great destructive agent that has made such frightful inroads into the numbers of the Maori people. In fact, the Maori constitution appears to be rotten. A slight attack of illness, which would scarcely detain the European from his ordinary occupations, strikes down the Maori, and the prostration is so complete that permanent recovery is the exception.

"Will not the saturation of the whole system with this fearful disease solve also, in some measure, the problem of the unprolificness of the females, an equal share in the want of vigour being ascribed from the same cause to the males?

"These suggestions are made with the greatest diffidence, and only with the hope before expressed that practical medicine will decide whether this view is just, or whether it must be rejected."

### (III.)—*Long continued Intermixture of Blood.*

"One other cause of depopulation suggests itself to the mind of the writer:—The *constant intermixture of blood* during the twenty

"The Bishop of New Zealand again rose and explained, for the information of his auditory, that having heard it often stated *that by some mysterious law, as it were, the native races melted away before the advance of civilization*, he endeavoured, as soon as he arrived in New Zealand, to ascertain whether that opinion was really founded in fact. With that view he induced the missionaries to take a census of a large community, consisting of 35,000 souls, registering the name of every man, woman, and child. He had had that document revised from time to time, and found the reason for the disappearance of the native races of New Zealand, and that was, that the natives took the advantages which civilization introduced among them, and converted them into a curse instead of a blessing to them. He spoke in particular of the article of *Indian corn* or *maize*, which was one of the great instruments employed for saving the people from starvation in the late famine in Ireland. The natives allowed the article to *steep* for two months in a running stream, in order to soften it until it got into a state of *putridity*, and then mothers gave it to their young children. The consequence was, that many native mothers who had as many as ten children born to them, did not succeed in rearing one of their offspring. This was the cause of the great mortality among native children—as was evident from the fact that the wives of English missionaries who had as many as ten or twelve children born to them, often reared every one of them. The adult native population had also a habit of abusing the *English blanket*—wearing it about them in all states, getting it *soaking wet*, and then *sleeping* in it, thus producing those frequent *pulmonary complaints* which carried off many of the adults. An improvement was however now taking place in the habits of the natives in these respects. There were now thirty or forty water-mills erected at intervals all along the coast of New Zealand for grinding corn, and the people were being fed with bread made from flour. In this way children were thriving, and the population, in many cases, was actually on the increase. There was still a considerable remnant of the native race, who, he believed, would strike root downwards and throw their branches upwards, and by their amalgamation with Europeans, a race would spring up all the better because of its mixed origin (hear, hear)."



generations that the Maories have occupied this country. In the ranks of the lower animals it is known that breeding 'in and in' for two or three generations is quite sufficient to take from the race-horse his speed, from the game-cock his courage and activity, from the dog his strength, and from all, their health and energy. Does not the same natural law govern the human species?

"How completely and constantly this handful of people have intermingled may be judged from the appended statement, in which the names of many well-known chiefs of tribes, now far separated and sometimes hostile, may be recognized as relatives of each other, and in fact forming one large family. The scheme might easily be extended until the entire population was included. Had the various intermarriages been added, a perfectly mixed plan of consanguinity would have been exhibited. If such is the condition of the aristocracy, how constantly and intimately the persons of inferior rank must have interfused whose opportunities of marrying were usually confined to their own tribe.

"The words 'run out,' present no definite meaning to the philologist; but the confused idea which they suggest to the mind, of a race of animals whose higher physical qualities have disappeared and whose chief characteristics are utter loss of energy and vital force, is perfectly realized by the present aspect of the aborigines of this country."

"In concluding this branch of the subject," Mr Fenton remarks, that "it is possible that another cause of decrease may be found entirely overriding all those previously suggested. There may be a law of Nature, mysterious and inscrutable, under which no species can perpetuate itself beyond a certain period. We know that races of plants and animals have died out, while the almost simultaneous extinction of large families, possibly widely-scattered over the world, is a recognized fact. If families die out in accordance with this mysterious dispensation should not also nations?"

"It can scarcely be questioned, that it is one of the duties of a Government to use every endeavour not only to encourage the people under its care in the growth of civilization and respect for the laws, but also to direct and assist them in the attainment of such material advancement as is necessary to the preservation of the public health, and the proper increase of its numbers. It is true, that prudence cannot be enforced by laws, without a great violation of natural liberty, and a risk of producing more evil than good; but still the very great influence of a just and enlightened Government, and the effect of perfect security of property in creating habits of prudence, cannot for a moment be questioned.

"It will, perhaps, be considered out of place, in a bare investigation of this character, to refer to measures which may be adopted for the successful recuperation of this population, especially as it is a matter of great difficulty to examine questions of this nature without touching upon matters which belong rather to the politician than the collector of statistics. But brief allusion may be not unfitly made to what appears to be the principal 'conclusion of the matter.'

"Besides the measures which have lately been sanctioned by the legislature for imparting to the New Zealanders the benefits of law



and civil institutions, *the remedies to be employed for arresting the decay of the race must be directed to the improvement of their social condition by giving security and performance to their possession and occupation of land, and encouraging the growth of grass, so as to augment their material resources and enable them to obtain better food and clothing.* There are, in the case of the Maories, no pre-existing impediments to the accomplishment of these objects. Unlike the hunting races of the New World, or the shepherd tribes of Asia, they have already, from the physical character of the country, and the utter absence of game and animals of the chase, been impelled into the position from which civilization takes its first upward step; and the lands are already assigned definitively to certain owners, although the boundaries of territorial rights are uncertain, and the titles are generally obscure and often conflicting. Still the principal is recognized and rational, and towards the carrying out of any scheme of advancement of social condition or settlement of titles to land, the people themselves are anxious to give their aid.

“Under the above definition are included all those measures of amelioration which a Government, without exceeding its legitimate functions, may be fitly called upon and qualified to undertake.

“Thus, by giving security and permanence to the occupation and possession of land, will be achieved the grand requisite of civilization, — fixity of residence. Good houses, intended to endure, will arise on land, of which the tenure seems secure, and which may descend, with its improvements, to the children of the tenant whose labour is making it of value. By the exercise of the power of alienation a class of European settlers will be brought amongst them, who will, by example and instruction, wean the Maories from their present desultory plan of agriculture to a system based upon the feeling of a perpetual right in the cultivator and his successors, and who will, moreover, cause them to apprehend that the secret which they have for many years been trying to find out, viz., the art of living without labour, is one which will never be discovered. Permanent fences will be recognized as a necessity. The cultivated grasses which will immediately follow, or which may precede the division and legal tenure of land, will maintain sheep to furnish an annual income from their wool; and cows, whose milk will supply a nutritious food to the young, and may reduce the mortality among that class of the population to the rate obtaining in the Otawhao establishment.

“The diversion of the habits of the people into new and unprofitable channels, such as result from the possession of a breed of high horses, fit only for tribes of hunters, or the ownership of sea-going vessels which they are incompetent to manage, and which not uncommonly end a short career in loss and disappointment, is not so beneficial a direction of their energies as the encouragement and instruction of their natural tastes and ancient habits as cultivators of the soil.

“To enlarge upon these subjects in this paper would be out of place. A quotation, however, is added, forming the remainder of Mr. Heaphy's report, as that gentleman's reflections seem to have terminated in the same conclusion which has already been frequently expressed in writing by the collator in other papers. ‘I find,’ he

says, 'a population of 235 Maories, with a cultivated area of 168 acres. These 235 souls occupied an area of 35,000 acres of waste land, or in a proportion of 149 acres to each soul. The area of cultivated land appears to be low; but the Maori has no idea of turning old calculations to account. They are suffered to become overgrown with docks or thistle, and after a few months' neglect have no claim to be included in the statistics of cultivated land. I am aware that any matured plan for the amelioration of the condition of the natives should be governed by the results deduced from the whole census in its completion; but I cannot omit now suggesting that every means should be taken to induce Maori to turn into pasture their old cultivations.

"For the 168 acres of cultivated land included in the returns, there are about a thousand acres of old clearings, all of which, before the weeds had made head, would have been eminently adapted for grass, and would have required but little after attention or culture. These are now the strongholds of the burr, and no wool can be usefully grown in their vicinity. On grass lands so situated, always in convenient places, and near their villages, the natives might easily maintain a sufficient number of cows to afford a wholesome and nutritious food for their children; milk instead of dried shark and stinking corn.

"While land and cultivations are in common, and while the native has no sole and *individual* interest in the land cultivated, and the locality inhabited, the incentive to steady industry will not overcome the propensity to roving and idleness. Securing to an individual by means of a crown grant, his holding, even if it be but a small area, will, in inducing continued residence on the spot, its improvement year by year, and the natural collection around it;—of the appliances that lead to comfort, such security of tenure, will, I believe, conduce more to the improvement of the Maori than any plan that has yet been proposed, and will cause him, and his successors, to respect the laws of the power, which, in their first exercise, secured to him a status and an independence, an immunity from the encroachments of chief or tribe."

A scheme for settling the Native to land, somewhat analagous to the system pursued by our Anglo-Saxon forefathers,\* is appended by Mr. Fenton to this paper, he styles it a "*Scheme for the partition and enfranchisement of lands held under native tenure.*" The operation which, he states, would be simple and without risk to the European Government or people; the whole management and responsibility of the transaction resting with the Maori alone, *guided* only by the judicial officer of the district. The operation of this machinery would be slow, as none but the valuable land would probably be desired to be enrolled, the mountainous or barren districts being left for pigruns, or sale, to the Government. But no plan can effect this great object with speed. It must be remembered that

\* See "Hallam's History."



the process of separating common titles and apportioning lands is not yet completed even in England. The number of acres of common land brought into cultivation from the beginning of the reign of George III, to the end of the year 1834, was 6,840,540, and the number of Enclosure Acts passed by the Legislature for this purpose during the period, was 3,742, and the process is still going on.

The devotion of the abandoned lands to pasture, and the expediency of encouraging generally among the Maories, the cultivation of the artificial grasses, has already been urged by Mr. Fenton in other papers. *This question is of very great and varied importance, embracing a much wider field than the simple recuperation of a population, or the retardation of its decay, though in itself an object of sufficient magnitude to warrant exertion for its attainment.*

In concluding his memorandum, Mr. Fenton states, as an apology for defects and want of consecutiveness therein, that it has been written in circumstances often of considerable mechanical inconvenience, adverse to the elaborations, or even the retention of a connected train of thought, circumstances, the difficulty of which has been increased by the impossibility of access to many necessary documents and books of reference.



## MISCELLANEA.

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I.—*Life Assurance Convention at New York, 1860.*

THE following passages are taken from the proceedings of the Delegates from Life Insurance Companies, which met in New York in May, 1860.

"The *Committee on Vital Statistics* submitted their report, stating that thirty-nine companies and agencies of all kinds and conditions had been addressed by circular-letter; twenty-two companies responded favourably, and complete returns were received from thirteen.

"The Committee continue and conclude thus:—

"'No replies have been received from the other companies, with the exception of one letter from the Secretary of the American Mutual, of New Haven, declining to furnish the *data*, but offering to furnish *results* deduced by themselves, which proposition the Committee would respectfully refer to the Convention for action.

"'The Committee have thought that the object contemplated in their appointment would be the better attained if the contributions from the various companies were to remain unopened until further action by the Convention, when it was hoped that all contributing companies, including those *not* represented in the last Convention, would be present, and have a voice in the final disposition of the *data*. The Committee have, then, confined themselves to the duty of inducing as many companies as possible to contribute their *quotas* to a general fund, and now place the various contributions at the disposal of the Convention in the same order as when first received.

"'The Committee have thus collected a simple, concise, yet comprehensive form, the elementary *data* according to the official record of thirteen life companies, and have in addition data promised to them from nine other companies. It is not yet known how many lives and policies, or rather *years of life*, are thus embraced, but the number is undoubtedly larger than that from which was deduced (as inferred) the celebrated 'Actuaries,' or 'combined experience' table of mortality.

"'It now remains for the Convention to decide upon what shall be done with the valuable materials thus gathered, at the cost of so much time and labour.

"'There is at the present moment a *Fund* of no less than 22,000,000 dols. held in trust and invested by American Life Companies, with *Annual premiums* amounting to more than 7,000,000 dols., covering *Policies* of about 180,000,000 dols. on the *Lives* of 60,000 American citizens. Is it not time, in a mere pecuniary point

of view, that some efforts were made to ascertain the laws governing the duration of life in the localities thus covered? It has been well said that a knowledge of the laws of mortality is the very essence and foundation of the system of Life Assurance; in fact, a Table of Mortality may be called the keystone of the arch upon which the vast superstructure of Life Assurance is based, and upon the accuracy of our tables depend, in a great measure, the stability and safety of the great institution (amounting in this country to so many millions of a most sacred fund) in which we are all so much interested.

“ ‘ We have now, Mr. President, from the best of all sources, viz., abstracts from the actual records of the companies themselves, the preliminary data for constructing tables and deducing sound and reliable information of the greatest practicable value. In short, Sir, we have now the opportunity of submitting certainty for uncertainty, facts for mere conjecture, and of placing the whole system of Insurance, heretofore greatly dependent on individual judgment, or at least upon foreign observations, upon the broad foundation of scientific investigation. If the contributing companies would so arrange their books as that at stated times, once in five or ten years for instance, a *census* might be taken, so that we could then correct or corroborate our tables from actual experience, little more could be desired.

“ ‘ In placing the contributions in the hands of the Convention, the Committee would recommend that the task of deducing practical tables having special reference to the comparative mortality in the different sections into which our country has been divided, at different ages or epochs of life, both among native and foreign assured, the determination of the extra risk on voyages, &c., and the value of selection, &c., be confided to a proper Committee.’

“ The report says further :—

“ ‘ In view of the immense area of the country, embracing such diversities of soil and climate, over which the good influences of life assurance are extending, the Committee are of opinion, that for convenience and reference, it would be advisable to divide the territory of the United States and Canada into different classes, as follows :—

“ ‘ Class I.—The New England and Middle States.

“ ‘ Class II.—The Western States.

“ ‘ Class III.—The Southern States bordering on the Atlantic Ocean.

“ ‘ Class IV.—The Southern States bordering on the Gulf of Mexico.

“ ‘ Class V.—California, Oregon, Washington, and Utah Territories.

“ ‘ Class VI.—Within ten miles of the Mississippi Valley, below the 32nd parallel of latitude.

“ ‘ Class VII.—Military and Naval men, seamen, &c.

“ ‘ Class VIII.—The Canadas and British possessions of North America.’

“ The Committee, to whom was referred the question of the *Rate of Interest*, made their

#### “ REPORT.

“ ‘ That no subject is of greater importance to the perpetuity of Life Insurances. A failure to realize the rate of interest upon which premiums and annuities are based, would jeopardize the existence of an institution, and involve serious embarrassment to all identified with it. Such a calamity could only be averted by the increase of rates upon existing contracts, or a pro rata reduction of the sums assured and annuities granted, either of which would be oppressive and unjust to those whose contracts had been running for long periods. These and similar considerations have always prevailed in well-regulated institutions, transacting the business of Life Insurance and annuities, to cause the adoption of such a rate of interest as experience has shown might, with a moral certainty, be expected to be realized for a century at least.

“ ‘ The principle governing the *Rate of Interest* has been well stated by an eminent economist to be, ‘ the rate of profits which can be made by the employment of capital ;’ hence it follows, that war, which destroys the capital accumulated by peaceful industry, causes a rise in the rate of interest ; and in a new country, where



capital is needed, the rate of interest is higher than in an old country, where capital has accumulated. During forty-eight years of War, the rate of interest in *England* for the most approved securities average *four per cent.*, but during forty-four years of Peace it was *three and a-half per cent.* In *this and neighbouring States* the rate for premium loans or real estate has ranged from *five to seven per cent. during a century*; but in *England* it has ranged from *three and a-half to five per cent.*; and at the present time, in some of our new Western States, it is as high as *twelve per cent.* Very high rates of interest imply risk in the investment, the excess over the rates obtainable for the best securities being charged as an insurance of the risk of losing the principal. In the case of Life Insurance Companies, an ever watchful solicitude for the safety and perpetuity of funds belonging to widows and orphans leads to the selection of the higher classes of securities, and consequently, the business is conducted upon calculations, which assumed the realization of the rates paid only upon such securities.

“ ‘ Among the causes which are exerting an influence upon the rate of interest at the present time, the increase of the Precious Metals, improved facilities of communication promoting greater economy in the employment of capital, increased freedom and extension of trade and commerce, and the development of the resources of new countries, are signally prominent. The metals are being added in large volume to the moveable capital of the world, and in their distribution among the nations, with greatly improved facilities of communication, they seem for the time being to promote an equalization in the rates of interest in the great maritime cities, co-incident with a general disposition in all enlightened communities to repeal usury laws and to leave the rate of interest to be regulated in common with other questions of purchase and sale by the laws of trade and commerce. Whether there is to be a permanent reduction in the rate of interest from this increase of the precious metals, your Committee do not feel competent to express an opinion. So far as events are transpiring, from absorption of the metals in the arts, the hording of silver in Asia, the increased demands of new countries for currency, there does not seem to be any great augmentation in the reserves of the metals held by civilized nations for the purpose of currency proportionate to the increased production of the mines; it is mainly as currency that the metals add to the active capital of a country. In stimulating industry and in causing an increased production and exchange of commodities, or as active currency increasing prices, the influence of the precious metals would seem to be more favourable to an increase rather than to a decrease in the rate of interest. Considered as capital, their increase favours a reduction in the rate of interest; but their influence in stimulating industry, production, trade, and commerce, gives rise to an increased demand for capital. In the case of our own country, the demand for capital to develop the natural resources of our wide-extended territories was greatly increased by the supplies of the precious metals which entered into the currency a few years after the discovery of gold in California.

“ ‘ In conclusion, your Committee would refer to our intimate commercial and financial relationships with Europe, as among the influences which are likely, in the future, to have an important bearing upon the rate of interest in this country. Hitherto it has probably occurred, that every war in Europe has diverted from us more capital than the distrust created by such war has caused to be transmitted to this country. But there has been cultivated in Europe, within a few years, an intimate acquaintance with the true character of our country and our institutions, and the power to make intelligent discrimination in the selection of American Securities for the permanent investment of large estates is no longer wanting in the financial circles of that quarter of the world.

“ ‘ Your Committee, therefore, conclude that the flow of capital from Europe to this country is likely to exert an important influence on the *Rate of Interest* here; and that in determining upon a rate for calculating the premiums and annuities of Life Insurance Companies during the next Century, it would seem advisable *not to select a higher rate than Four per cent.* ’ ”

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II.—*Sugar Crop of Louisiana, 1834-59.*

WITH reference to the Sugar supply of the United States, a circular of Messrs. Joseph Travers and Sons has the following :—

“The last New York advices furnish an interesting statement of the *Sugar Crop of Louisiana* for each year during the last quarter of a century. It will be noticed that it is liable to extreme fluctuations, which have an important bearing on all other markets, since in those years, when the production suddenly falls to a low point, the Americans are forced to become heavy competitors at our own sources of supply. In 1834 the value of the crop in English money was 1,200,000*l.*, and last year it was 3,640,000*l.* It has, therefore, kept about equal pace with the progress of population and luxury. The variations, however, have been great. In 1856 the yield in money value was only 1,620,000*l.*, or half that of the preceding year, while in 1858 it attained the unparalleled total of nearly 5,000,000*l.* :—

*Sugar Crop of Louisiana for Twenty-Five Years.*

Year.	Total Crop. Mlns.	Total Value. Mlns.	Year.	Total Crop. Mlns.	Total Value. Mlns.	Year.	Total Crop. Mlns.	Total Value. Mlns.
	lbs.	dols.		lbs.	dols.		lbs.	dols.
1834 ....	100,0	6,0	1843....	100,0	6,0	1852....	368,1	15,4
1835 ....	30,0	2,7	1844....	200,0	9,0	1853....	495,1	15,7
1836 ...	70,0	4,2	1845....	186,6	10,2	1854....	385,7	18,0
1837 ....	65,0	5,0	1846....	140,0	8,9	1855....	254,5	16,1
1838 ....	70,0	4,3	1847....	240,0	9,6	1856....	81,3	8,1
1839 ...	115,0	5,7	1848....	220,0	8,8	1857....	307,6	17,9
1840 ....	87,0	4,7	1849....	269,7	12,3	1858....	414,7	24,9
1841 ....	90,0	3,6	1850 ..	231,1	12,6	1859....	255,1	18,1
1842 ...	149,0	4,7	1851....	227,1	11,8			

III.—*Statistics of Cheap Literature in Leeds.*

AMONG the witnesses examined before the Select Committee of the House of Lords, appointed this session to inquire into the effect of the reduction of the Electoral franchise, was Mr. Edward Baines, M.P. for Leeds, proprietor and nominal Editor of the *Leeds Mercury*.

“Having been asked by the chairman of the committee, when making a statement with regard to mechanics’ institutions, and other educational agencies, at work in Yorkshire, whether there is not a large number of translations from French novels sold in Leeds, Mr. Baines gave it as his opinion that that kind of demoralizing literature is not much patronized by the Leeds operatives, who appear (says the *Manchester Review*, from which we are extracting), to be a much more serious class of readers than the operatives of Manchester generally are. The examination proceeded as follows :—‘Lord Lyveden: What is the general nature of the periodical literature of which you have spoken as to its morality and its tendency to the improvement of the people? Mr. Baines: There is an immense diversity, certainly. If the committee will allow me I will give a list made last year; but perhaps you will first allow me to give the numbers, and then I will go into the nature of the publications. This list has been made up by the secretary of the Leeds Mechanics’ Institution, for the purpose of a prize essay,

within the last month, and he gives me the periodicals sold in the borough of Leeds as follows, dividing the magazines under three heads,—literary, religious, and temperance—and also into weekly and monthly, with their retail value:—The literary magazines, weekly, amount to 19,727; monthly, 6,348; the retail value per annum, 5,765*l.* 3*s.* 10*d.* The religious magazines, weekly, amount to 2,375; monthly, 7,968; their retail value per annum, 1,319*l.* 5*s.* 10*d.* Temperance publications, weekly, 374; monthly, 14,672; retail value per annum, 643*l.* 15*s.* 2*d.* Newspapers in daily circulation, 2,540; weekly, 24,937; retail value per annum, 15,862*l.* 5*s.* The totals are, daily periodicals, including newspapers and magazines, 2540; weekly, 47,413; monthly, 28,988; total retail value per annum, 23,592*l.* 9*s.* 10*d.*; of which the working classes are estimated to pay 9,244*l.* 11*s.* 10*d.*, and the upper and middle classes to pay 14,347*l.* 18*s.* The above is exclusive of books, and of all the reading in the mechanics' institutions, subscription libraries, reading rooms, and news rooms. I have a list here of the publications, but I would just mention one circumstance: The noble chairman asked me a question with regard to works of a profligate character. I may say that I find that of the atheistic work, *The Reasoner*, one of Mr. Holyoake's works, there are only 26 copies sold, and of *The Investigator* (I do not know what it is, but it is returned as of an infidel class) there were 22 copies sold, out of a total number of 47,413 weekly, and 28,988 monthly; showing the extreme insignificance of their circulation; whilst of the other class of periodicals, I see *Chambers' Journal*, 170; *Chambers' Information*, 178; *Chambers' Literature*, 59; *Household Words*, 127; *Leisure Hour*, 323; *Cassell's Illustrated History of England*, 739; *Public Lecturer*, 250; *Sunday at Home*, 339; *Welcome Guest*, 501; *Home Magazine*, 517; *Guide*, 563; *Popular Educator*, 113; *Gardener's Chronicle*, and *Natural History*, various, 40; *British Workman*, monthly, 320; *Band of Hope Review*, 256; *The Lamp*, 71; *Dictionary of Common Wants*, 736, &c., &c.' This interesting statement is a valuable contribution to the literary statistics of our manufacturing population."

#### IV.—Mr. William Chambers on the Book Trade.

WE take the following passages from Mr. Chambers' article on the Book Trade, contributed to *Chambers' Cyclopædia*:—

"*The Canvassing Trade*.—Entirely separated from the general book trade, there flourishes a system of publishing of a peculiar kind. We allude to the Canvassing Trade, which consists in the plan of disposing of books in weekly and monthly numbers or parts. The business is conducted by only a few houses in London, Edinburgh, Glasgow, and one or two other places. Canvassers are employed to go from door to door, to procure subscribers; and the numbers are delivered periodically, till the work is completed. On account of the expense of canvassing and delivery, books sold in this manner are necessarily much dearer than if disposed of through the ordinary channels of trade. The method, however, of buying books in small portions at a time, accommodates certain classes of customers, and has been the means of disseminating an improving literature—Bibles, with notes and illustrations, and works of piety in particular—in quarters not reached by the operations of the bookseller.

"*The Publishing Societies*.—Apart, likewise, from the general trade, the publication of small books, tracts, and periodicals, is carried on to a large extent by associations for religious purposes, the funds for which are raised by voluntary subscriptions. As far as concerns the distribution of purely religious tracts among the unfortunate and less instructed members of the community, no fault is found with the operations of these societies. But when such associations address themselves to the publication of volumes and illustrated periodicals, differing in no material respect from the ordinary products of private enterprise, and intended not



for gratuitous distribution, but for sale, a certain injury is felt to be unbecomingly inflicted on the trade, which can no more be justified than the damage done to free competition by the giving of bounties on particular manufactures. Notice has been taken of two periodicals of the Religious Tract Society of London, the circulation of which must be allowed to be fostered in this manner, and other works could be pointed out as being so greatly cheapened by the same objectionable method as to be placed completely beyond the reach of fair commercial competition.

“*Trade Sales.*—Trade Sales, which are now less common than formerly, are conducted in the following manner. A publisher, wishing to get quit of a large part of his stock, issues a catalogue to the trade, stating the reduced price of each book as well as the length of credit offered; and that the sale is to take place in a tavern specified, on a certain day, for which an invitation is given. At the appointed time and place, a handsome dinner is on the table, and perhaps from a hundred to two hundred guests are assembled. Nothing is said about business during dinner, but with the wine and glasses afterwards, and amidst no little good humour, the sale begins. Each book being called over, every person has an opportunity of saying how many copies he will take. Occasionally a toast is proposed, in order to maintain the hilarity of the meeting. At these sales it is not unusual to dispose of ‘remainders of books,’ that is, fag-ends of editions which are not moving off with sufficient alacrity in the ordinary course of trade. Remainders are either offered in small quantities at a very reduced price, or they are sold in the lump by auction. Purchased cheaply, these remainders are henceforth known as ‘books with broken prices.’ Many of the new-looking books ticketed on stalls are portions of these remainders. In some instances they are sent to the colonies, in the hope of finding a market. At these trade sales it is common to do business to the extent of from 5,000*l.* to 10,000*l.*; in the case of one publishing house, the amount is usually, at a half-yearly sale, from 12,000*l.* to 15,000*l.*; and in another, being an annual sale, it is seldom less than 26,000*l.* To avoid the seemingly useless outlay on a dinner, some publishers rely on the circulation of ‘sale catalogues,’ comprising offers at tempting prices, provided that orders are given within a certain day. Vast quantities of school-books of good reputation, and other works permanently in demand, are bought by London commission-houses in this manner, annually, about the month of November.

“*Publishing in France.*—In France, publishing is carried on chiefly in Paris, where there are now some extensive printing establishments, including the ‘Imprimerie Impériale,’ provided with machinery equal, if not superior, to anything of the kind in London. As regards substantiality and elegance, French books occupy a place between those of Germany and England. They are, with few exceptions, done up simply in coloured paper covers, for temporary service; but the ink is generally better than that used in England; and works when of a superior class are executed with a high degree of taste—the excellence of pictorial embellishments being always conspicuous. Certain voluminous and most expensive works in French, and also in the classical languages, occasionally issue from the Parisian press, and command a large sale; orders of copies for university and public libraries all over the Continent tending to promote these gigantic enterprises. Although confined mainly to Paris, the business of publishing, or at least of preparing books for the Parisian market, and for exportation, is carried on to a considerable extent in several provincial towns. Tours, in particular is the seat of a large book factory, that of Messrs. Mame, in which printing, designing, engraving, and binding, are all executed on the premises. According to returns of the Board of Trade for 1857, the following were the French imports and exports of books in 1855. Value of imports, 1,829,470 francs; of exports, 12,344,855 francs; the export trade having increased 30 per cent. since 1851. The exports are to Italy, Germany, Russia, Belgium, North America, and other countries, and a portion also comes to England. Between France and the United Kingdom there is now an international law of copyright, by which translations of works are protected in either country, when the title page indicates that ‘the right of translation is reserved.’”



V.—The “*Cheap*” Press—Effect of the Repeal, in 1855, of the Penny Stamp.

THE following statements are derived from a recent edition of the *Newspaper Press Directory*, published by Mitchell & Co., an authority of the highest class. It would be difficult to imagine, any facts more strikingly illustrative of the value and importance of repealing obstructive taxes. It should not be forgotten that for the liberations of 1855 the country is chiefly indebted to Sir George Lewis, the then Chancellor of the Exchequer.

“It appears from a statement recently compiled, that more than half the Newspapers published in *London* are those of the Cheap press, and that the *total number of cheap papers* established throughout the kingdom to the beginning of the present year (1860) was within three of 500.

“Of these, 323 are papers which have come into existence *since* the abolition of the stamp duty in June, 1855; 174 are old papers, formerly published at full price, but now become cheap papers, making the total number 497.

“It appears also that 161 journals, which have not come down in price quite to a level with the new ones, have adopted an intermediate price, and that many of the old provincial journals that still keep up the higher price publish two editions—one being a number which they call the ‘People’s Edition,’ and issue it at a *penny*, and the other their old full-priced edition, the circulation of which has, in many instances, been found to fall far short of that of the cheap edition.”

“In the *Home counties*, out of 76 papers, 25 are full-priced ones, 41 are those of the cheap press, and 10 are intermediate price. The *six Norfolk circuit counties* have 42 papers, of which 18 are full-priced, 27 are cheap papers, and 5 are intermediate price. The 27 cheap papers in these counties include 6 of the old journals which were formerly published at full price. In the *Western counties*, where the newspapers number together 84, 25 are full-priced, 45 are cheap papers, and 14 are intermediate price. The newspapers in the eight counties of the *Oxford circuit* are 86 in number, 31 of which are full-priced papers, 47 are cheap papers, and 8 are intermediate price. In the *six Midland counties*, where there are 78 newspapers, 14 only are full-priced journals, 9 have established an intermediate price, and 55 (including 21 of the old newspaper family, existing prior to 1855) are cheap papers. In the two counties of *York and Lancaster*, out of 175 papers, 12 only are full-price; while in the other *five Northern counties* the number of full-priced papers and cheap papers is equal, viz., 22 of each; of the total number of cheap papers (114) in these seven counties, 70 have been established since the abolition of the stamp duty in 1855, and 44 are old papers, which were formerly published at full price, but are now reduced to the price of the cheap press.

“In *Wales*, as in the English provincial counties, the number of cheap papers preponderates, there being in the principality 7 full-priced papers, 14 cheap papers, and 4 intermediate price. Here, then, we see that in *England and Wales*, while the number of cheap papers is 378, that of the full-priced papers is 288, the number of intermediate price journals being 102.

“In *Scotland*, where the total number of newspapers is 138, 41 are full-priced, 73 are cheap papers, and 24 are intermediate price. 32 of the cheap papers in Scotland comprise those established between 1668 and 1855, and include the *Caledonian Mercury*, and other old papers which now form a large portion of the cheap press in Scotland.

“In *Ireland*, the number of full-priced Journals has the ascendancy, being 63; while the cheap papers number 34, and the intermediate price journals are 32, making together 129 papers in Ireland.

“In the *British Islands* the newspapers—15 in number—are all ‘cheap’ ones, except 3, which are intermediate-priced journals.

“Thus it will be seen that the *cheap papers* throughout the kingdom and the British Islands to January, 1860, outnumbered the full-priced journals by more than 100. The total number of full-priced journals being 392 ; intermediate price, 161 ; and cheap papers, 497.”

The following tabular statement is given as representing the relative numbers of newspapers in 1860 belonging to the several political creeds:—

COUNTRY.	Number of Newspapers.	Liberal.	Conservative.	Independent.	Neuter.
England .....	743	266	129	78	270
Wales .....	25	9	6	2	8
Scotland.....	138	76	13	14	35
Ireland .....	129	39	42	12	36
British Isles .....	15	7	3	—	5
	1,050	397	193	106	354

VI.—*Male Population of the Seven Great States of the World.*

THE following interesting table is given in the Appendix (p. 123), of the Sixteenth Annual Report of the Registrar-General.

MALE POPULATION of SEVEN GREAT STATES, *distinguishing the Numbers Living at Five Ages.*

Years for which the population in the Table is given.	STATES.	Males.					
		Total Mlns.	0—20.	Military Age, 20—40.	40—60.	60—80.	80 and upwds.
1851	England.....	13,687,545	6,417,101	4,111,481	2,245,358	842,624	70,981
1851	France .....	17,794,964	6,562,179	5,541,462	4,020,275	1,566,864	104,184
1844	Turkey .....	17,533,124	9,361,323	4,784,490	2,448,275	857,013	82,023
1840	Austria .....	18,202,631	8,465,132	5,242,611	3,271,212	1,152,356	71,320
1849	Prussia .....	8,162,805	3,821,608	2,535,891	1,342,320	462,986	
1855	Russia .....	33,448,093	17,858,678	9,127,414	4,670,594	1,634,931	156,476
1850	United States of America (exclusive of the coloured population) }	10,026,402	5,114,831	3,160,028	1,339,838	376,427	35,278
	Total .....	118,855,564	57,600,852	34,503,377	19,337,872	7,413,463	



VII.—*Progress of Savings' Banks.*

"IN the United Kingdom, on the 20th November, 1859, the number of Savings' Bank *Depositors* was 1,479,723, and the *amount* due to them was 36,462,440*l.*, in addition to which there were 27,633 accounts of Charitable institutions and Friendly Societies, whose deposits amount to 3,535,190*l.*, so that the total amount invested in Savings' Banks on that day was 40,997,630*l.*

"From the 20th November, 1858, to 20th November, 1859, the *increase* in the number of *depositors* was 96,365, and of the *amount* due to them 2,345,360*l.* The following is the classification of the accounts at 20th November, 1859 :—

Depositors	Average Amount Due to each Depositor.	Increase in Number of Depositors.	Depositors.	Average Amount Due to each Depositor	Increase in Number of Depositors.
No.	£ s. d.	No.	No.	£ s. d.	No.
213,473	— 6 —	12,958	58,032	44 6 2	3,866
294,639	2 10 6	18,649	98,380	60 12 4	9,118
194,133	6 15 4	12,242	45,580	86 12 6	2,971
140,092	11 19 3	8,633	30,700	110 17 3	2,217
86,250	17 3 —	5,421	18,134	136 17 —	1,336
148,571	23 17 8	8,883	28,482	169 17 5	1,911
121,501	33 4 —	1,317	1,652	215 9 4	153
1,198,659	13 13 8		280,960	117 16 —	

VIII.—*Colony of Victoria (Australia), Changes produced by the Gold Discoveries—Revival of Agriculture.*

WE extract the following interesting statement from a recent number of the *Melbourne Argus*,—a paper which does honour to the Colonial Press. The facts given are remarkable and valuable :—

"A few years ago this colony exhibited to the world the spectacle of a people rich in Metallic wealth, but without Agriculture and without Manufactures.

"In the year 1854, little more than *three persons out of every hundred* of the population were engaged in agricultural and horticultural pursuits, and only about one-third of the population was engaged in productive industry. The effect of the Gold discoveries upon agriculture was especially disastrous. The land under cultivation, which in 1850 reached 52,000 acres, and yielded 90 per cent. of the bread-stuffs required by the inhabitants, fell, in 1854, to 34,000 acres, and in that year the quantity under wheat was only 7,553 acres. The question arose, what was the cause of this great decline? and it is a most significant fact that, until the publication of the Registrar-General's elaborate tables, the true answer could not be, and had not been given. Most people were familiar with the idea that gold countries were generally poor, and that industry is the only sure foundation of riches, but somehow they could not realise the actual fact that men would, from choice, for months and years, prefer the gambling chances of a miner's life, surrounded as it is with every possible discomfort and privation, to the sober routine of ordinary industry.

"In 1855, this system had already proved to be a rotten one; but no one understood the true cause of the disastrous crisis which then took place. Still



more ignorant were most of our politicians of the cause of the ruined condition of the agricultural interest. At that time the prevalent opinion in reference to agriculture was, that the grand barrier to its success was our system of *land sales*, that the people were eager to cultivate, and that nothing more was necessary than to modify the price and to place a sufficient quantity within reach of the intending settlers. This panacea was brought before the public by no less a body than the Chamber of Commerce, who undertook to lead public opinion. They framed a memorial to the Government, which they published as a pamphlet, and their great nostrum for all the social and financial calamities of the period, was land at 5*s.* per acre.

“ Since this monstrous and suicidal proposition was put forth, public opinion has made great progress, and the propounder of such a theory would now be scouted by the authors of the pamphlet as a madman; but even now there is a sad deficiency in accurate ideas on the Land question, and we feel convinced that the tables published by the Registrar-General will be of great benefit in modifying and correcting the crude and mistaken notions even of our most prominent politicians.

“ We proceed to notice, as carefully as possible, the precise effect produced by the Gold discoveries on the direction of industry.

“ In the period from 1846 to 1850, the settlement of the country, as we have already mentioned, progressed with yearly increasing vigour. During that period the population was nearly doubled. On 2nd March, 1851, the number of inhabitants was 77,345. During the five years from 1846 to 1850, the quantity of Crown lands sold was 120,000 acres, at an average of 2*l.* 8*s.* 7*d.* per acre. The effect upon agriculture proved that the purchases were made by *bonâ fide* settlers. Table 52, in the statistics under notice, shows an increase in the quantity of wheat grown from 142,139 bushels in 1845, to 556,167 bushels in 1850, while from 1846 to 1850 inclusive, the proportion of wheat per cent. raised in the colony to the total quantity required by the population, was 84 to 90. Out of every 100 bushels consumed by the people, 84 to 90 were in those years produced within the colony. At that period the *producing classes* amounted to upwards of 20,000, or nearly one-third of the population, and the *proportion per cent.* of persons engaged in agriculture and horticulture was 5·59; professional and trading classes, were 8·16; domestic servants, 5·96; and all others, 58·62 per cent. of the population.

“ Let us now briefly trace the *sale of land* along with the progress, or rather decline, of agriculture. In 1851, when the amount of cultivation was sufficient for the supply of the inhabitants, the number of acres possessed by them was 4½ per head. From that date agriculture languished. In 1851 and 1852, there was a slight increase in cultivation, the number of acres cultivated having advanced from 52,000 to 57,000; but in 1853 and 1854 the quantity under cultivation again declined, and reached its lowest point (34,651 acres) in the latter year. From 1855 a very rapid advance commenced, the number of acres cultivated in the subsequent years being as follows:—1855, 54,715 acres; 1856, 115,135 acres; 1857, 179,982 acres; 1858, 237,729 acres; 1859, 298,959 acres.

“ It is worthy of remark, that during the period when the agricultural interest was in a state of prostration, and when population was pouring into the colony with greatest rapidity, there was no falling off in the sales of land; and it is still more remarkable that the proportion of land possessed by the inhabitants continued to increase. In 1851, 77,000 people possessed 334,000 acres, or 4½ each. In 1853, 222,000 people possessed 1,005,401 acres, or 4½ acres each. Notwithstanding their possession of land, they would not cultivate. Out of 236,000 inhabitants in 1853, not more than 8,000 were engaged in agricultural and horticultural pursuits. Out of 160,000 persons added to the population in three years, only about 4,000 had engaged in farming. Out of more than one million of acres that had been purchased, *not one additional acre was subjected to the plough*, but actually in one year (1853) more than 20,000 acres previously in crop passed out of cultivation. It is thus manifest that had the Chamber of Commerce in 1855 made a right use of the facts then available, they would have been able to demonstrate that sales of land *per se* have no effect in promoting cultivation.

"It is worthy of special notice, that the commencement of our *agricultural era* is coincident with the great commercial crisis in 1855. Up to that period the whole population were literally living upon gold. This was an unnatural state of things, which the crisis of 1855 greatly altered. Vast numbers, from being distributors, were forced to become producers. They were not anxious to go upon the land. The Chamber of Commerce was quite mistaken in supposing that the price of land was in any degree an element of consideration. The truth is, that it is much easier to buy and sell—it is much pleasanter to keep a shop or an inn, than to work in the fields; but in 1855 it became evident that every one could not be a shopkeeper. Some must cultivate. In that year, stern necessity forced a commencement of settlement and cultivation. When the commencement was fairly made, it was speedily demonstrated that this country is as rich in natural as in mineral resources. It was fortunate this so turned out, otherwise when the alluvial workings were comparatively exhausted, there would have been nothing but starvation to the unlucky diggers.

"The history of agriculture in this colony may be briefly summarised as follows:—It was neglected for several years after the discovery of gold—first, by the capitalist, who embarked all his means in trade; secondly, by the labouring class, who almost to a man preferred sinking for gold. It was revived in consequence of trade being overdone, and by the exhaustion of the alluvial diggings, which drove back the mining class to ordinary industry. It is now vigorously prosecuted, because in many parts of the country it has for some years afforded a fair return for the investment of capital."

#### IX.—*Glasgow New Waterworks—Economic Savings.*

THE following statements are taken from the speech of the Engineer at the Dinner given in celebration of the completion of the Works:—

"*The Glasgow Waterworks.*—The engineering cost of these works was to have been about 540,000*l.* for 20,000,000 gallons per day. They have cost about 700,000*l.*, but have produced 30,000,000 gallons a-day. I take no credit to myself for this result, but it is a fortunate fact notwithstanding. By all rules of calculation, the four feet cast iron pipe across the Duchray Water, the Endrick, and the Blane, ought not to deliver more than 20,000,000 gallons of water per day, with the inclination which has been given to them of five feet of fall per mile.

"They do, however, with a much smaller inclination than that, already deliver 26,000,000 gallons per day, and there is no doubt that, as soon as a slight alteration is made in some of the works in the hills, at least 80,000,000 gallons a-day may be passed through them. This is owing chiefly, I believe, to the smooth, glassy surface which has been given to the pipes, by being coated with coal pitch, to prevent corrosion—an improvement which I first introduced in the Manchester Waterworks about twelve years ago, and into all other soft water supplies; since that time, however, whatever the cost has been, it is satisfactory to know that you are not called upon to pay a single penny more in the pound than you formerly paid for the inferior supply from the Clyde; and, more than this, the saving in articles of domestic consumption to which water is applied—such as soap and tea and coffee—effected by the requisite purity and softness of the water, as compared with the hard water you have been accustomed to use, is nearly equal to your whole water rate, and is equivalent to a *free gift to the city of 1,000,000*l.* sterling.*

"In the consumption of soap alone, the saving to the inhabitants on the north of the river will be nearly 30,000*l.* a-year. The total population of Glasgow may be taken at present at 460,000; deduct for Gorbals 110,000; total on north of river, 350,000. Mr. Porter estimates the annual consumption of soap at 9·2 lb.



per individual. This, at  $5\frac{1}{2}d.$  per lb., will give 72,000*l.* as the annual cost of soap, on the average of the country, consumed by the 350,000 persons on the north of the Clyde. Since the introduction of the Loch Katrine water, careful returns show *that nearly one-half of the soap* formerly used will now suffice.

“ If these calculations were to be applied to London, the saving there, allowing for the harder character of the water, would amount to not less than 400,000*l.* per annum, equivalent to the outlay of 10,000,000*l.* of money, which it would be worth the while of the Londoners to pay for water equal in quality to Loch Katrine.”

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X.—*New Land Act (1860), adopted in the Colony of Victoria (Australia).*

THE question of Land Legislation in Victoria has at length been solved at least for a time, by the Act of the Colonial Legislature, passed after long debate, in September, 1860. We extract the following details from the Melbourne correspondence of the *New Zealand Gazette*, of 14th November, 1860, as relating to one of the most difficult and important efforts at Land Legislature ever undertaken by a modern Legislative Assembly elected by universal suffrage. The statements given are full of interest :—

“ That stumbling-block in the way of legislation, ever since legislation was attempted in Victoria—the *Land Bill*—has at last been got out of the way. At the date of our August letter (1860) there was no appearance of the two Houses making such mutual concessions as was necessary before the measure could be passed. It was ultimately agreed, however, that the Upper House should name a committee to meet a committee of the Lower House, with the view of adjusting the five points of difference. These committees met—that of the Council undertook to recommend that that body should give way on three of the five points; while the Assembly’s committee merely presented a report of its proceedings, without any recommendation. Practically, the points of dispute were thus reduced to two; and, in a discussion in the Assembly, which ensued on the presentation of an informal message from the Council, it was decided that the Lower House would not insist upon the two points to which the Upper House took exception. Thus reassured, the Council returned the Bill amended in accordance with the recommendations of their committee; and when it came before the Assembly, they, in turn, agreed not to insist on their two points. Thus the Land Bill was passed, and every one whose duty it has been to take part in politics, or to watch the proceedings of parliament, experienced a sense of relief to which he has been a stranger for the last eleven months.

“ Whether the new Land Bill, which comes into operation on the 1st of November, 1860, will prove a panacea for all the ills under which Victoria is now suffering, I very much doubt. If not in the way anticipated, however, its disappearance from the political arena will be productive of good, by affording parliament time and opportunity for initiating and maturing those many other acts of progressive legislation to the advancement of which it effectually stopped the way.

“ The more prominent features of the measure are—the lands are divided into two classes—‘special’ and ‘country.’ *Special lands* imply all lands within specified distances of towns, rivers, railways, and the sea, and are to be sold by auction, as at present, at an upset price of 1*l.* per acre. *Country lands* include all other lands, and they are to be sold by selection at a uniform price of 1*l.* per acre. *Country lands* are to be divided into allotments of from 80 to 640 acres, and each allotment is to be subdivided into two equal portions, which may be taken up by free selection at the uniform price. When subdivisions are applied for, the full amount of the purchase-money must be lodged, and on the day appointed the



applications are to be publicly opened. If there be only one applicant for a particular piece, he gets possession at once. Should several persons have applied for one allotment, limited auction is to be had recourse to, at which none but applicants are allowed to bid. Unsuccessful applicants will have their money returned. *Unsold lands* may be taken up in allotments at any time to the extent of 640 acres, upon payment of the uniform price. 3,000,000 acres are to be surveyed as soon as possible. Stringent rules are enacted against land-jobbing, which it is expected they will be effectual in preventing."

THE *Argus* gives the following analysis of the provisions of the Land Bill, which has at last passed through both branches of the Legislature:—

"The Crown Lands Sales Act, the great achievement of the legislative session, 1859-60, containing eighty-nine clauses, comes into operation on the 1st day of November, 1860.

"By this measure the public lands of Victoria are divided into two classes—special lands and country lands.

"*Special lands* (clause 13) include all lands within twenty miles of Melbourne and Geelong, within *five* miles of Ballarat, Castlemaine, Sandhurst, and other large centres of population in the interior; within *three* miles of the smaller townships, and within *two* miles of any settlement containing not less than 100 inhabitants; or within *two* miles of any *railway* formed or projected, or of the River Murray, the sea coast, or any other frontier of the colony; or within one mile of any land alienated before the commencement of this Act. It is enacted (clause 48) that one or more public sales of special lands shall be held at least once a quarter. Among the conditions of sale are—that no special lands shall be sold under 20s. per acre; that a fourth of the purchase-money shall be deposited; and that the purchase shall be completed within a month of the sale, or deposit to be forfeited. It is in the power of the Governor in Council to fix the upset price of all special lands.

"*Country lands* (clause 14) include all lands, save special lands and lands which may be reserved from sale by direction of the Governor in Council, for quays, railways, roads, places of worship, markets, hospitals, cemeteries, &c.; and it is enacted that 'country lands shall be sold by selection, at the uniform price of 1*l.* per acre.'

"The Board of Land and Works are directed (clause 15) from time to time to cause country lands to be surveyed in allotments of not less than 80 or more than 640 acres; each allotment to be divided into two equal parts, called *subdivisions*. By the 18th clause, the said board are directed to survey lands to such an extent that the Governor may, within twelve months after the passing of the Act, proclaim districts comprising in the aggregate not less than 3,000,000 acres. The land will be proclaimed, as much as possible, in districts, and not, unless under circumstances of necessity, in isolated or scattered allotments.

"Any person (clause 19) desirous of purchasing the fee-simple of a subdivision of any allotment shall, before the last day for receiving applications for land in the district in which it is situate, which day will be publicly advertised, make application accordingly to the officer named in the advertisement, and at the same time pay a deposit of 1*l.* (to be returned in case no purchase is effected) for every acre contained in the subdivision applied for, which in the event of acceptance, shall be considered as the purchase-money for the fee-simple of such subdivision. If, when the time arrives for determining upon the applications sent in, it shall appear that there is only one applicant for any subdivision, he shall be declared the purchaser; but if there are two or more applications, the subdivision will forthwith be sold by public auction, at which only applicants for the subdivision (or their agents) will be allowed to bid; and the highest bidder will be declared the purchaser. Every person declared the purchaser of any subdivision (clause 26) will have the option of becoming the purchaser of the other subdivision at the same price, or of renting the same at the rate of *one shilling* per acre per annum, payable in advance. The rented land, however, must be used for pastoral

purposes only (clause 37), and the lessee must undertake to effect, during the first year of occupation, improvements on the purchased subdivision to the value of 1*l.* per acre. Omission to do this, or for the lessee to reside either on the rented or the purchased land, will be attended by the nullifying of the lease, in which event the land comprised in such lease shall be sold (clause 38) in the same manner as special lands.

“ In case the purchaser of the first subdivision declines to buy or rent the other subdivision (clause 27), such subdivision shall be sold by public auction, open only to the other applicants, at the upset price of 1*l.* per acre.

“ After the day fixed for determining on the applications (clause 30), the person who shall first apply at the district land office for any subdivision not sold or leased, shall, on paying at the rate of 1*l.* per acre, be declared the purchaser.

“ The 28th clause enacts that no person declared the purchaser upon any sale by auction, shall be entitled to bid at the same auction for any other subdivision included in the same proclamation, for which two or more applications shall have been received. And the 31st clause directs that no person shall, within a year, be entitled to acquire more than 640 acres, unless the land which he shall select above that quantity shall have been proclaimed open for selection for more than one year.

“ Any lessee, during the continuance of his term, will be at liberty to purchase (clause 40) the subdivision comprised in such lease at the same price as he shall have paid for the subdivision originally purchased.

“ Nine clauses (69 to 77) are devoted specially to the question of *commonage*. It will be lawful for the Governor in Council to proclaim Crown lands in the vicinity of any town or any gold field as commons for the depasturing of cattle belonging to the inhabitants of such town or gold field, as the case may be. And the Governor in Council is also empowered, upon the petition of not less than ten occupiers, of not less than 500 acres of adjacent purchased land, to proclaim that any Crown lands within five miles, and not being more than three times the area of such purchased land, shall be a common for the use of such occupiers of the said purchased land as shall cultivate at least one-fourth of their purchased land; and every such common shall be called a ‘*farmer’s common*,’ and continue as such until any applications for the purchase thereof be made. By the 42nd clause it is likewise enacted that after one-fourth of the land mentioned in any proclamation as open for selection shall have been selected, the remaining allotments shall, until selected, be open as ‘*farmers’ commons*’ to all persons who have purchased land within such districts.

“ These are the prominent features of the Act; but there are also provisions as to compensation for improvements effected on rented land, and for improvements effected on lands occupied under any legal right, license, or authority other than a lease, and hereafter sold; as well as provisions for granting on lease Crown lands for the purpose of mining for any mineral except gold; for the closing of roads not required for public use, on the payment of an adequate money consideration; for opening roads with a view to secure more convenient access to Crown lands; for non-interference with watercourses, reservoirs, &c., on alienated lands; for imposing penalties for the unauthorized occupation of Crown lands, and for the ejectment of persons in such unauthorized occupation; for the issue of depasturing licenses; for imposing penalties for depasturing without license, or depasturing in excess, &c. By the 82nd clause, extensive powers are conferred upon the Governor in Council for the issue of proclamations, the making of rules and regulations, and the taking of other steps with a view to the ‘more fully carrying out the objects and purposes of the Act,’ the chief of which is the affording greater facilities for settlement in the colony ‘than have hitherto existed to persons desirous of engaging in agricultural pursuits.’ ”



ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN  
OF THE  
MARRIAGES IN ENGLAND AND WALES DURING THE SECOND QUARTER  
(APRIL—JUNE), AND OF THE BIRTHS AND DEATHS DURING  
THE THIRD QUARTER (JULY—SEPTEMBER), OF 1860.

THIS Return comprises the BIRTHS and DEATHS registered by 2,197 Registrars in all the districts of England during the Summer Quarter that ended on September 30th, 1860; and the MARRIAGES in 12,433 churches or chapels, about 4,307 registered places of worship unconnected with the Established Church, and 631 Superintendent Registrars' offices, in the quarter that ended on June 30th, 1860.

The Temperature during the past quarter has been unusually low, the sky cloudy, the earth often sunless, and the weather generally bad, in the language of meteorology; nevertheless, the progress of the phenomena which the returns record is satisfactory. The Mortality was much *below* the average, the Births little differed from it; the Marriages were increasing. Sanitary improvements have gone on, and the general result of the wet weather has been a better supply of water, the purification of the sewers, and the retardation of putrefaction, as well as of the zymotic changes which produce diarrhoea. Fruit has been comparatively abundant, and its consumption has also had a sanitary effect. Mr. Leigh, of Manchester, justly says, "the dependence of diarrhoea upon a high temperature" seems to be most marked, for fruit has been unusually plentiful, and it has been "eaten most freely without ill effect."

The ultimate results of the extraordinary season will be watched with interest as they are revealed in future returns.

MARRIAGES.—87,666 persons married in the three months ending in June last;

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, returned in the Years  
1854-60, and in the QUARTERS of those Years.

*Calendar YEARS, 1854-60 :—Numbers.*

Years .....	'60.	'59.	'58.	'57.	'56.	'55.	'54.
Marriages No.	—	167,900	156,070	159,097	159,337	152,113	159,727
Births..... „	—	689,558	655,481	663,071	657,453	635,043	634,405
Deaths..... „	—	441,249	449,656	419,815	390,506	425,703	437,905

QUARTERS of each Calendar Year 1854-60.

(I.) MARRIAGES :—Numbers.

Qrs. ended last day of	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	35,198	35,429	29,918	33,321	33,427	29,186	33,234
June ..... „	43,833	42,045	39,890	41,267	38,820	38,549	40,518
Septmbr..... „	—	39,926	38,599	38,669	39,089	37,308	38,182
Decmbr. .... „	—	50,500	47,663	45,840	48,001	47,070	47,793

## QUARTERS of each Calendar Year, 1854-60.

## (II.) BIRTHS:—Numbers.

Qrs. ended last day of	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	183,206	175,429	170,959	170,430	169,250	166,225	160,785
June ..... „	173,914	175,727	169,115	170,444	173,263	165,277	172,457
Septmbr. .... „	164,062	168,311	157,445	161,181	157,462	154,700	154,724
Decmbr. .... „	—	170,091	157,962	161,016	157,478	148,841	146,439

## (III.) DEATHS:—Numbers.

Qrs. ended last day of	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	122,642	121,682	125,819	108,665	103,014	134,542	111,843
June ..... „	110,878	105,778	107,142	100,046	100,099	106,493	102,586
Septmbr. .... „	86,423	104,339	98,142	100,528	91,155	87,646	113,843
Decmbr. .... „	—	109,450	118,553	110,576	96,238	97,022	109,633

and the rate of marriage was 1·762, exceeding the average by ·058. The marriages rose from 39,890 in the spring quarter of 1858 to 43,833 in the corresponding quarter of the present year. From this fact it may be inferred that the prospects of the Working classes have been growing brighter, and that their real condition has improved. The increase of marriages has been greatest in Cheshire and Lancashire, in London, and generally in the manufacturing districts; but an increase is observable in every division *except the Eastern Counties*.

BIRTHS.—164,062 children were born and registered in the ninety-two days of July, August, and September. The number is less than the number in the last year, but exceeds largely the numbers registered in the corresponding summer quarters of any previous year. The increase of births is most considerable in London, Lancashire, Cheshire, and Yorkshire. The birth-rate of the quarter was 3·250; the average of the season being 3·278.

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1854-60, and the QUARTERS of those Years.*

## Calendar YEARS, 1854-60:—General Percentage Results.

YEARS .....	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
Estmtd. Popln. of England in thousands in middle of Year .....	19,994,	—	19,745,	19,523,	19,305,	19,045,	18,787,	18,619,
Persons Mar- ried Per ct. }	—	1·692	1·700	1·598	1·648	1·674	1·620	1·716
Births .... „	—	3·404	3·492	3·357	3·435	3·452	3·380	3·407
Deaths .... „	—	2·218	2·235	2·303	2·175	2·050	2·266	2·352



## QUARTERS of each Calendar Year, 1854-60.

## (I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	1.420	1.416	1.462	1.248	1.408	1.416	1.266	1.456
June..... „	1.762	1.704	1.712	1.642	1.714	1.638	1.648	1.750
Septmbr. „	—	1.630	1.602	1.566	1.592	1.626	1.574	1.626
Decmbr. „	—	2.000	2.020	1.930	1.876	1.990	1.978	2.030

## (II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	3.693	3.554	3.621	3.567	3.600	3.585	3.603	3.520
June .... „	3.495	3.558	3.577	3.480	3.548	3.656	3.534	3.722
Septmbr. „	3.250	3.278	3.377	3.195	3.308	3.275	3.261	3.294
Decmbr. „	—	3.232	3.402	3.198	3.295	3.264	3.128	3.111

## (III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March....Per ct.	2.472	2.460	2.512	2.625	2.295	2.182	2.916	2.449
June ..... „	2.228	2.195	2.153	2.205	2.083	2.112	2.277	2.214
Septmbr. „	1.712	2.042	2.093	1.992	2.063	1.896	1.848	2.423
Decmbr. „	—	2.182	2.189	2.400	2.263	1.995	2.039	2.329

INCREASE OF POPULATION.—The excess of births over the deaths in the quarter was 77,639 ; so the natural increase of the population of England and Wales was at the rate of 844 daily ; and if the rest of the population increased equally fast the natural increase of the United Kingdom must have been at the rate of 1,266 daily. *The increase exceeds any on record.*

About 10,874 *Emigrants* of English origin sailed from the ports of the United Kingdom at which there are Government emigration agents ; 5,134 to the United States, 336 to the North American colonies, 4,115 to the Australian colonies, and 1,289 to other parts. 33,734 emigrants sailed from these ports, of whom about 1,433 were of foreign origin. Half of the Scotch and only about one-eighth of the Irish go to the Australian colonies.\*

\* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners : the number returned as of English origin was 8,360, while the birthplace of 7,799 emigrants was not distinguished ; in the above statement a proportional number of these have been added to those returned as of English origin.

PRICES, THE WEATHER, AND PAUPERISM.—The Prices of Provisions have been high during the thirteen weeks. Taking the corresponding weeks of 1859 as the starting point, the price of wheat rose 34 per cent., beef 7 per cent., mutton 11 per cent., potatoes 59 per cent. The average prices during the thirteen weeks were: wheat 59s. 1d. a quarter, beef 5½d., mutton 6¾d. a pound by the carcase in the Leadenhall and Newgate markets; York Regent potatoes 135s. a ton at Waterside Market, Southwark. The prices of the lower qualities of beef were stationary

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine Summer QUARTERS ended 30th September, 1860.

1	2	3	4		5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.	
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.	In-door.		Out-door.
1858	£	s. d.	d. d. d.	d. d. d.	s. s. s.				
30 Sept.	96½	44 7	4¼—6¼ 5¼	4½—6½ 5½	65—90 77	107,197	705,301	61·0	
31 Dec.	98¼	41 9	4—6½ 5¼	4¼—6¾ 5½	80—95 87	115,751	710,904	43·8	
1859									
31 Mar.	95⅝	40 8	4¾—6¾ 5¾	4¾—7 5⅞	80—100 90	122,854	742,964	43·3	
30 June	92⅞	47 3	4¾—6½ 5⅝	5—7 6	85—110 97	109,150	710,410	53·7	
30 Sept.	95⅜	44 0	4¼—6¼ 5¼	4¾—6¾ 5¾	65—105 85	100,582	682,867	62·8	
31 Dec.	96⅞	43 4	4—6½ 5¼	4¾—6¾ 5¾	85—120 102	109,429	683,962	43·3	
1860									
31 Mar.	94⅝	44 5	3¾—6½ 5⅞	4¾—6¾ 5¾	115—145 130	118,523	717,264	38·8	
30 June	94⅞	52 8	4¾—6¾ 5¾	5½—7½ 6½	125—160 142	107,050	692,384	50·5	
30 Sept.	93¼	59 1	4¼—7 5⅝	5¼—7½ 6⅝	125—145 135	101,680	667,680	56·2	

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The *average* of the highest and of the lowest *weekly* prices is here shown in cols. 4, 5, and 6, and not the *absolute* highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 645 Unions, &c., comprising a population of 17,670,935 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1858, to—Insane Persons, 19,487; Vagrants, 2,265. The rest of the paupers on that day amounted to 880,280.



( $4\frac{1}{4}d.$ ), and the prices of the higher qualities rose from  $6\frac{1}{4}d.$  to  $7d.$  a pound. The prices of the lower and higher qualities of mutton rose  $\frac{1}{2}d.$  and  $\frac{3}{4}d.$  in the pound in the twelvemonth, and were respectively  $5\frac{1}{4}d.$  and  $7\frac{1}{2}d.$  a pound during the thirteen weeks.

The mean *Temperature* of the thirteen weeks at Greenwich was  $56^{\circ}2$ ; which is less by  $3^{\circ}3$  than the mean temperature of the corresponding seasons of 89 preceding years. The temperatures of July, August, and September were all below the average to nearly an equal extent. There is no other instance on record of so low a mean temperature of the four months June, July, August, and September as  $55^{\circ}9$ . By going back to 1771 Mr. Glaisher, however, finds a mean temperature of  $56^{\circ}0$ . The fall of *Rain* in the three months was 9.6 inches, which is 2.1 inches in excess of the average. The fall of rain has been 25.1 inches at Greenwich during 9 months, and has varied at the several stations from 16.8 inches at Scarborough to 42.6 inches at Lampeter in Cardiganshire. The excess of rain at Greenwich in the nine months is 6.0 inches. Upon this subject and others Mr. Glaisher in his valuable report gives some interesting details; and among them may be mentioned the time at which the crops as well as some fruits ripened. According to his reports the *Potato disease* is not so bad in the south as it is in the north of England.

*Pauperism* is declining; on an average 769,360 were in the receipt of relief, while the number in the corresponding weeks of the previous year was 783,449.

STATE OF THE PUBLIC HEALTH.—86,423 *deaths* were registered in the three months ending in September, or less by 17,916 than the deaths (104,339) registered in the corresponding quarter of last year. To every *six* deaths in the last there were only *five* in the present summer. The rate of mortality was 17; whereas the average of the season is 20 per 1,000.

The *reduction of the mortality* is observable in the town and in the country districts; but it is by far from the greatest in the *Town districts*. The average number of deaths in the town districts during the summers of 1850-9 was 52,861; whereas the deaths in the last summer were 45,495; in the *country districts* during the same periods the deaths were 43,697 and 40,928. The rate of mortality in the *Town districts* fell from 23.75 to 18.42 per 1,000; in the *Country* and small town districts from 17.59 to 15.87—or 5.33 degrees in the Town and 1.72 in the Country districts.

This is exceedingly gratifying; and if the supply of vegetables prove adequate through the year, it is not probable that the reaction will deprive the population of all its gains. The drainage of the banks of the Thames and of the other marshy districts of the country would secure the inhabitants from the attacks of neuralgia, rheumatism, ague, and fever, which often follow rainy seasons.

In LONDON the mortality was low; the prevailing diseases have been described in the Quarterly Summary of the Weekly Tables.

The WEST MIDLAND COUNTIES generally experience a mortality above the average; but there are signs of improvement which cannot be entirely accounted for by the flooding of the sewers by the rains. The decrease in the mortality of Wolverhampton, Walsall, West Bromwich, and Dudley, where the water supply was imperfect, is enormous; and in nearly all of them certain sanitary arrangements have been introduced. The deaths in Birmingham and Aston during the last three summer quarters have been 1,854, 1,815, and 1,244: the mortality has fallen one-third part.

It is probable that the ordinary Water supply of a place is bad when its mortality is greatly reduced by heavy rains.

In the NORTH WESTERN COUNTIES 13,959 deaths were registered, the deaths in the previous quarter having been 15,509. The system of *middens* prevails in Lancashire, and the dirt is there not washed away by rain as it is in sewers; which may account for the circumstance that the reduction of the mortality is less in this county than it is elsewhere. The registrars of the West Derby district, a part of which is in the borough of Liverpool, call attention to the diminished rate of mortality. "Sanitary measures," one of them says, "under the Health Act

“ have greatly improved this district.” Scarlatina has been very prevalent in the Lancaster sub-district; it was fatal in 15 cases, and had it not been for the superior sanitary arrangements, the registrar believes “ it would have been four times as fatal, for in an ill-drained group of twenty houses a quarter of a mile from the town, the disease was the cause of three deaths.”

The deaths in Yorkshire were 9,806, or less by 1,177 than the deaths in the summer quarter of the previous year. There is no reduction in the high mortality of the *Leeds* or of the *Hunslet* districts: indeed, diarrhoea prevailed there, and the deaths were 1,481, or 170 more than in the summer quarter of the previous year. The causes of the high mortality deserve the careful attention of the intelligent authorities of that important town. Hull and Sculcoates experienced a great reduction of mortality.

*DEATHS in the Summer Quarters, ended September 30th, 1853-60.—Numbers.*

DEATHS, &c.	1860.	Total 1850-59, (10 Years.)	1859.	1858.	1857.	1856.	1855.	1854.	1853.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i> .....	45,495	528,614	55,641	53,706	55,718	49,975	46,654	67,555	50,153
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and <i>Country Parishes</i> ...	40,928	436,970	48,698	44,436	44,810	41,180	40,992	46,288	42,048
All England .....	86,423	965,584	104,339	98,142	100,528	91,155	87,646	113,843	92,201

*AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Summer Quarters, ended September 30th, 1850-60.*

GROUPS.	Area in Statute Acres.  (England.)	Population Enumerated. (England.)		Deaths in 10 Summer Quarters, 1850-59.	Average Annual Rate of Mortality per Cent. of 10 Summer Quarters, 1850-59.	Annual Rate of Mortality per Cent. in the Summer Quarter 1860.
		June 6-7th, 1841.	March 31st, 1851.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i> .....	No. 2,149,800	No. 6,838,069	No. 8,247,017	No. 528,614	Per ct. 2·375	Per ct. 1·842
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns</i> and <i>Country Parishes</i> .....	35,175,115	9,076,079	9,680,592	436,907	1·759	1·587
All England .....	37,324,915	15,914,148	17,927,609	965,584	2·042	1·712

The *Weather* of this quarter may be looked at as an experiment on the health of the people. Employment has been easily obtained by workmen, but the prices of provisions have been high. And this general survey seems to establish the fact, that the salubrity of the season is chiefly due to two circumstances; the reduced temperature of summer, and the abundant supply of water by rain. The low



temperature retarded the putrefaction of the town impurities; and the water washed them away; so both the forces acting in the same direction, gave a great result. A careful study of the circumstances of each locality by which the result was produced, cannot fail to be instructive; and to confirm the faith of the authorities in the simple sanitary elements with which nature works.

If Wolverhampton is, as the Registrar conjectures, extraordinarily healthy, "because the frequent rains have swilled away the impurities from which in hot summer weather noxious effluvia arise, thereby preventing the sickness, and diarrhoea more especially, caused by such vapors in the air, and impurities in the water supply," why should Wolverhampton ever be again as unhealthy and as dangerous to its inhabitants as it was before? It is true the town has no command over the rain; but it has unquestionably the power to wash away the impurities from its cesspools and its sewers. Its engineers can supply the town with sweet waters in abundance for the use of the inhabitants. If the Birmingham and Aston district too lose only 1,244 inhabitants by death when the town is well washed, why should they ever die again at the rate of last summer when 1,815 of the people perished?

The remedy is too simple to obtain immediately all the attention it deserves from the municipal authorities. But they cannot do better than imitate the great oriental dignity suffering from leprosy, as our towns are now suffering from other diseases, who although he was wroth when told to "wash and be clean," yet finally obeyed the injunction, and was healed.

MARRIAGES Registered in Quarters ended 30th June, 1858-60; and  
BIRTHS and DEATHS in Quarters ended 30th September, 1858-60.

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1851. (Persons.) No.	4 5 6 MARRIAGES in Quarters ended 30th June.		
			'60.	'59.	'58.
			No.	No.	No.
ENGLD. & WALES....Totals	37,324,915	17,927,609	43,833	42,045	39,890
I. London .....	78,029	2,362,236	7,353	7,034	6,782
II. South Eastern .....	4,065,935	1,628,416	3,438	3,142	3,042
III. South Midland .....	3,201,290	1,234,332	2,154	1,980	2,014
IV. Eastern .....	3,214,099	1,113,982	1,725	1,731	1,759
V. South Western .....	4,993,660	1,803,261	3,803	3,616	3,675
VI. West Midland .....	3,865,332	2,136,573	5,342	5,358	4,874
VII. North Midland .....	3,540,797	1,215,501	2,906	3,004	2,639
VIII. North Western .....	2,000,227	2,488,438	7,348	6,719	6,151
IX. Yorkshire .....	3,654,636	1,789,047	4,537	4,215	4,012
X. Northern .....	3,492,322	969,126	2,499	2,428	2,392
XI. Monmthsh. & Wales	5,218,588	1,186,697	2,728	2,818	2,550

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th September.			11 12 13 DEATHS in Quarters ended 30th September.		
	'60.	'59.	'58.	'60.	'59.	'58.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES....Totals	164,062	168,311	157,445	86,423	104,339	98,142
I. London .....	22,342	22,413	20,917	12,916	16,254	14,553
II. South Eastern .....	13,448	13,986	13,044	6,934	9,152	8,134
III. South Midland .....	10,115	10,797	9,700	5,358	6,664	5,738
IV. Eastern .....	8,511	9,274	8,404	4,565	6,153	5,317
V. South Western .....	13,482	13,800	13,510	7,071	8,486	7,870
VI. West Midland .....	20,777	20,775	20,377	9,675	12,675	11,355
VII. North Midland .....	10,777	11,002	10,201	5,454	6,467	6,483
VIII. North Western .....	25,708	25,986	23,865	13,959	15,509	16,566
IX. Yorkshire .....	17,723	18,315	16,941	9,806	10,983	10,535
X. Northern .....	10,509	10,825	10,058	5,185	5,871	5,869
XI. Monmthsh. & Wales	10,670	11,138	10,428	5,500	6,125	5,722



## REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING SEPTEMBER 30TH, 1860.

*By JAMES GLAISHER, ESQ., F.R.S., &c., Sec. of the British Meteorological Society.*

The weather during the past Quarter has been very remarkable for continued low temperature, frequent rain, large amount of cloud, little sunshine, and bad weather generally.

The temperature within the three months reached its average on 9 days only, and fell short on 83 days; the mean excess on the 9 days was less than  $\frac{3}{4}^{\circ}$ ; whilst the average daily deficiency for the 83 days exceeded  $4^{\circ}$ .

The mean high day temperature in July was  $4^{\circ}8$ ; in August  $5^{\circ}9$ ; and in September  $4^{\circ}3$  below their averages; whilst in June it was as large as  $6^{\circ}5$ . The average deficiency of high day temperature for the four months ending September, was  $5\frac{1}{4}^{\circ}$ . This large deficiency for these months is, I believe, unprecedented.

The following table shows the average temperature at Greenwich of these three and four months respectively in every year since 1771:—

MEAN TEMPERATURE of JULY, AUGUST, SEPTEMBER, and of Four Months  
ending SEPTEMBER, at GREENWICH, from 1771 to 1860.

Year.	Mean Temperature.		Year.	Mean Temperature.		Year.	Mean Temperature.		Year.	Mean Temperature.	
	July, Aug., Sept.	June, July, Aug., Sept.		July, Aug., Sept.	June, July, Aug., Sept.		July, Aug., Sept.	June, July, Aug., Sept.		July, Aug., Sept.	June, July, Aug., Sept.
	°	°		°	°		°	°		°	°
1771	56.6	56.0	1794	59.5	59.0	1817	56.2	56.9	1839	58.2	58.4
1772	58.2	58.5	1795	60.2	58.6	1818	63.5	63.4	1840	58.1	58.4
1773	57.7	57.2	1796	59.2	58.4	1819	61.2	60.0			
1774	58.9	59.8	1797	59.0	57.9	1820	57.5	57.1	1841	58.8	58.2
1775	60.7	61.2	1798	59.7	60.1				1842	60.7	61.2
1776	59.3	59.2	1799	57.2	56.8	1821	59.7	58.3	1843	60.8	59.7
1777	60.3	59.3	1800	61.6	60.0	1822	59.9	60.6	1844	58.7	59.2
1778	61.3	61.3				1823	58.1	57.4	1845	56.9	57.9
1779	63.2	61.9	1801	60.6	60.0	1824	60.1	58.8	1846	62.6	63.3
1780	62.7	61.8	1802	59.4	59.0	1825	62.3	61.5	1847	60.6	60.0
			1803	59.3	58.5	1826	61.8	62.1	1848	58.6	58.6
1781	61.7	61.9	1804	59.8	60.2	1827	59.8	59.3	1849	61.3	60.4
1782	57.1	57.3	1805	60.0	58.7	1828	59.5	59.6	1850	59.6	59.9
1783	60.3	59.9	1806	59.9	59.9	1829	57.0	57.5			
1784	57.7	57.3	1807	60.1	59.5	1830	58.2	57.5	1851	59.8	59.6
1785	58.8	59.0	1808	61.2	60.4				1852	61.8	60.4
1786	56.4	57.2	1809	58.2	58.0	1831	61.3	60.9	1853	58.5	58.5
1787	59.0	58.7	1810	60.3	59.8	1832	59.6	59.5	1854	59.8	58.8
1788	58.8	58.8				1833	57.4	58.0	1855	60.4	59.6
1789	57.9	57.1	1811	59.1	58.8	1834	61.6	61.5	1856	60.0	59.6
1790	57.6	57.4	1812	56.8	56.1	1835	61.6	61.2	1857	63.3	63.0
			1813	57.2	56.8	1836	58.4	58.6	1858	61.0	62.0
1791	59.2	58.8	1814	58.2	57.0	1837	58.8	58.6	1859	62.8	62.4
1792	58.7	57.7	1815	60.9	60.2	1838	58.2	57.9	1860	56.2	55.9
1793	58.9	58.0	1816	57.1	56.1						

The mean low night temperature in July was  $3^{\circ}2$ ; in August  $1^{\circ}7$ ; and in September  $3^{\circ}3$  below their averages.

In the four months ending September, both days and nights have been remarkably cold, and almost always below their averages.

The mean temperature of July was  $4^{\circ}3$ ; in August  $3^{\circ}8$ ; and in September  $3^{\circ}7$  in defect, as compared with their respective averages from the preceding 19 years. As compared with the year 1859, July was  $10^{\circ}5$ ; August  $5^{\circ}8$ ; and September  $3^{\circ}3$  colder.

The Mean Temperature of the three months ending September was  $56^{\circ}2$ ; and once only, viz., in 1817 has the mean temperature of the same months been so low since the year 1771.

The mean temperature of the four months ending September is still more remarkable; its value was  $55^{\circ}9$ , and there is no other instance, as far as trustworthy record extend, of a temperature of so low a value for these four important months.

The temperature of August differed but little from that of July at all stations south of the latitude  $53^{\circ}$ ; north of this parallel August was colder than July, gradually increasing to  $3^{\circ}$  and  $4^{\circ}$  at extreme northern stations. September was from  $3^{\circ}$  to  $4^{\circ}$  colder than August at all stations.

The mean pressure of the atmosphere in July was a little above, in August much below, and in September below their respective averages. The pressure in August was less than in any August in the preceding 20 years.

The pressure was less in August than in July at extreme southern stations by 0.25 in., increasing gradually to 0.40 in. at northern stations. It was greater in September than in August by 0.15 in., at southern stations gradually increasing to 0.33 in. at extreme northern stations.

The temperature of the dew-point was below its average, in July and August, to the amount of  $1^{\circ}6$ , and in September to  $0^{\circ}09$ .

The fall of Rain in July was 2.8 in.; in August 3.7 in.; and in September 3.1 in.; amounting in the three months to 9.6 in., and being 2.1 in. in excess. The fall of rain from 1st January is 25.1 in., being 6.9 in. in excess.

The following table shows the fall of Rain at Greenwich in the nine months ending September, from the year 1815:—

FALL of RAIN at GREENWICH, in the Nine Months ending SEPTEMBER, from 1815 to 1860.

Years.	Amount of Rain in the first Nine Months of each Year.	Years.	Amount of Rain in the first Nine Months of each Year.	Years.	Amount of Rain in the first Nine Months of each Year.	Years.	Amount of Rain in the first Nine Months of each Year.	Years.	Amount of Rain in the first Nine Months of each Year.	Years.	Amount of Rain in the first Nine Months of each Year.
	Inches.		Inches.		Inches.		Inches.		Inches.		Inches.
1815	16.1	1823	18.1	1831	21.1	1839	20.9	1847	11.8	1854	13.3
1816	21.2	1824	25.4	1832	14.0	1840	13.3	1848	22.9	1855	13.7
1817	20.6	1825	15.2	1833	14.6	1841	21.2	1849	17.3	1856	18.3
1818	19.5	1826	16.9	1834	16.8	1842	16.3	1850	14.5	1857	15.4
1819	22.0	1827	15.6	1835	18.1	1843	17.6	1851	18.6	1858	14.2
1820	21.0	1828	26.5	1836	18.7	1844	16.2	1852	22.2	1859	17.2
1821	22.0	1829	21.8	1837	15.4	1845	16.6	1853	22.5	1860	25.1
1822	17.1	1830	21.8	1838	16.8	1846	17.6				

From the foregoing table it will be seen that the fall of rain up to this time has been larger than any since the year 1828.



The mean temperature of the air at Greenwich for the three months ending August, constituting the three summer months, was  $56^{\circ}\cdot7$ , being  $3^{\circ}\cdot4$  below the average of the preceding 89 years.

1860. Months.		Temperature of									Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
		Air.			Evaporation.		Dew Point.		Air— Daily Range.					
		Mean.	Diff. from Aver- age of 89 Years.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.
July .....	57·6	—3·8	—4·3	54·8	—2·9	52·3	—1·6	19·1	—1·6	62·6	·393	—·025	4·4	—0·2
Aug. ....	57·7	—3·0	—3·8	55·0	—2·6	52·5	—1·6	15·4	—4·2	60·9	·396	—·027	4·4	—0·3
Sept. ....	53·4	—3·0	—3·7	51·8	—2·2	50·2	—0·9	17·6	—1·0	58·4	·364	—·019	4·1	—0·1
Mean.....	56·2	—3·3	—3·9	53·9	—2·6	51·7	—1·4	17·4	—2·3	60·6	·384	—·024	4·3	—0·2

1860. Months.		Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Move- ment of the Air.	Reading of Thermometer on Grass.				
		Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Mean.	Diff. from Aver- age of 19 Years.	Amnt.	Diff. from Aver- age of 45 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
											At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
July .....	83	+ 7	In. 29·845	+·043	Gr. 534	+ 7	In. 2·8	+0·1	Miles. 172	0	9	22	32·0	51·7	
Aug. ....	83	+ 6	29·556	—·244	528	0	3·7	+1·3	—	0	6	25	37·0	55·0	
Sept. ....	88	+ 7	29·761	—·071	537	+ 3	3·1	+0·7	200	1	16	13	28·0	53·0	
Mean.....	85	+ 7	29·721	—·091	533	+ 3	Sum 9·6	Sum +2·1	Mean —	Sum 1	Sum 31	Sum 60	Lowest 28·0	Highest 55·0	

Note.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

*Wheat was in flower* at some places on the 1st July, and not until the latter end of the month at others; *it was cut* on 6th August at a few places, but some was uncut at the end of the quarter; it has ripened very irregularly all over the country.

*Barley was cut* at the beginning of August in Cornwall, and not until the 17th of September at Alnwick.

*Oats were cut* about the latter end of August in the south, and not until the latter end of September in the north; a great deal being still uncut at the beginning of October.

*Apples were ripe* on 15th September at Nottingham, and on the 20th at North Shields.

The Season has been very backward, owing to the cold and wet spring and summer. In some places the grass was left unmown until about the middle of September. Barley and oats promise good crops, and wheat is on the whole a better crop than was expected. The *Potato disease* is not so bad in the south as in the north.

ENGLAND.—*Meteorological Table, Quarter ended 30th September, 1860.*

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey .....	29·543	68·0	47·0	21·0	16·6	7·6	56·1	87
Exeter .....	29·537	78·9	39·6	39·3	27·2	14·5	56·8	79
Ventnor .....	29·519	70·0	41·0	29·0	27·3	8·4	57·6	82
Barnstaple .....	29·547	76·5	38·0	38·5	29·6	14·0	57·1	79
Royal Observatory	29·504	75·0	35·7	39·3	30·9	17·4	56·2	84
Royston.....	29·498	78·0	33·4	44·6	35·5	18·2	55·0	86
Lampeter .....	29·516	78·0	39·4	38·6	38·4	16·6	54·7	93
Norwich .....	29·491	75·0	34·0	41·0	27·8	14·5	55·6	86
Belvoir Castle ...	29·527	77·0	33·0	44·0	37·4	17·5	54·4	93
Liverpool .....	29·520	74·1	41·2	32·9	21·8	9·8	56·2	76
Wakefield .....	29·499	77·2	39·0	38·2	36·9	18·4	55·4	75
Leeds .....	29·494	78·0	33·0	45·0	32·0	15·1	55·9	76
Stonyhurst.....	29·444	75·0	34·7	41·3	36·5	18·8	53·7	83
Scarborough .....	29·517	69·7	40·0	29·7	20·7	7·9	53·2	87
Carlisle .....	29·462	76·8	31·8	45·0	35·0	16·2	54·8	83
North Shields ...	29·513	74·2	35·8	38·4	28·5	13·1	54·3	82

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey .....	1·9	8	4	6	12	5·1	45	11·5
Exeter .....	1·8	8	3	7	12	6·5	66	6·7
Ventnor .....	—	5	4	5	15	—	49	9·2
Barnstaple .....	1·4	6	6	7	10	4·4	49	15·0
Royal Observatory	—	6	3	8	13	8·0	52	9·6
Royston.....	—	8	4	6	12	7·3	67	8·2
Lampeter .....	1·1	6	2	8	13	6·7	54	16·0
Norwich.....	1·5	7	4	8	10	7·5	34	9·3
Belvoir Castle ...	1·8	6	2	8	14	6·7	45	10·7
Liverpool .....	1·2	—	—	—	—	7·8	46	9·2
Wakefield .....	1·5	5	4	7	13	6·8	56	9·9
Leeds .....	1·8	7	4	8	11	6·8	59	8·9
Stonyhurst.....	0·6	7	6	5	12	7·7	61	13·5
Scarborough .....	3·0	11	8	5	6	—	37	7·9
Carlisle .....	1·5	5	7	5	13	6·4	44	6·5
North Shields ...	1·6	10	5	6	8	6·9	49	8·0



Trade of United Kingdom, 1860-59-8.—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandize ( <i>excluding Gold and Silver</i> ), Imported from, and Exported to, the following Foreign Countries, &c.  (The unit 000's are omitted.)	First Six Months.					
	1860.		1859.		1858.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	5,531,	1,990,	4,921,	2,267,	3,545,	1,561,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	10,985,	10,079,	8,721,	8,498,	8,432,	8,559,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	11,510,	4,748,	11,681,	4,472,	8,695,	4,543,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	2,122,	2,721,	1,863,	2,556,	1,458,	3,119,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	6,886,	3,769,	5,358,	3,671,	3,505,	3,270,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	73,	79,	127,	94,	111,	71,
Western Africa	649,	473,	374,	345,	623,	387,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	19,	56,	13,	249,	26,	42,
Indian Seas, Siam, Java, Sumatra, Philip-pines; other Islands	643,	896,	977,	1,459,	662,	1,308,
South Sea Islands	—	3,	—	33,	—	18,
China, including Hong Kong	5,526,	2,858,	5,071,	1,979,	3,943,	1,499,
United States of America	25,631,	9,486,	17,310,	11,784,	19,614,	5,940,
Mexico and Central America	245,	284,	206,	369,	119,	447,
Foreign West Indies and Hayti	1,426,	806,	1,179,	1,086,	1,524,	1,023,
South America, (Northern,) New Granada, Venezuela, and Ecuador	297,	482,	306,	524,	202,	364,
„ (Pacific,) Peru, Bolivia, Chili, and Patagonia	2,435,	1,339,	1,798,	904,	3,398,	1,177,
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres	2,022,	3,164,	1,835,	2,776,	2,103,	2,506,
Whale Fisheries; Grnld., Davis's Straits, Southn. Whale Fishery, Falkland Islands...	24,	—	30,	15,	53,	—
<i>Total.—Foreign Countries</i>	76,024,	43,233,	61,770,	43,081,	58,013,	35,834,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	7,382,	9,377,	5,862,	10,442,	5,705,	8,726,
Austral. Cols.—New South Wales and Victoria	2,411,	4,116,	2,056,	4,065,	1,609,	3,714,
„ „ So. Aus., W. Aus., Tasm., and N. Zea.	1,029,	913,	757,	893,	520,	1,125,
British North America	697,	1,522,	717,	1,752,	631,	1,447,
„ W. Indies with Btsh. Guiana & Honduras	2,758,	1,149,	2,340,	1,093,	2,848,	1,149,
Cape and Natal	766,	953,	603,	890,	546,	821,
Brt. W. Co. of Af., Ascension and St. Helena	66,	166,	95,	172,	75,	114,
Mauritius	1,087,	252,	1,130,	299,	845,	303,
Channel Islands	242,	338,	212,	316,	180,	235,
<i>Total.—British Possessions</i>	16,438,	18,786,	13,772,	19,922,	12,959,	17,633,
General Total.....£	92,462,	62,019,	75,542,	63,003,	70,972,	53,467,

IMPORTS. — (United Kingdom.) — First Eight Months (*January — August*), 1860-59-8-7-6.—*Computed Real Value (ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit) of Articles of Foreign and Colonial Merchandize Imported into United Kingdom.*

(First Eight Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1860.	1859.	1858.	1857.	1856.
		£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool ....	28,941,	24,039,	22,291,	22,564,	20,628,
	Wool (Sheep's)..	7,797,	6,981,	5,600,	6,653,	5,796,
	Silk .....	6,243,	6,965,	3,564,	9,486,	4,501,
	Flax .....	2,256,	2,145,	1,465,	2,065,	1,568,
	Hemp .....	835,	1,372,	876,	821,	891,
	Indigo .....	1,893,	1,602,	1,380,	1,558,	2,004,
		47,965,	43,104,	35,176,	43,147,	35,388,
	„ „ <i>Various.</i> Hides .....	2,085,	1,884,	1,272,	2,649,	4,605,
	Oils .....	2,259,	1,917,	1,961,	2,194,	2,088,
	Metals .....	2,460,	2,215,	2,139,	2,347,	2,026,
„ „ <i>Various.</i>	Tallow .....	1,586,	1,150,	1,087,	1,390,	1,192,
	Timber.....	4,513,	3,826,	2,523,	3,691,	3,151,
		12,903,	10,992,	8,982,	12,271,	13,062,
	„ „ <i>Agrcltl.</i> Guano .....	923,	1,545,	2,976,	1,268,	1,661,
	Seeds .....	1,850,	615,	1,027,	1,238,	1,601,
		2,773,	2,160,	4,003,	2,506,	3,262,
	TROPICAL, &C., PRODUCE. Tea ... ..	5,081,	3,741,	3,301,	3,346,	3,279,
	Coffee .....	1,428,	1,078,	1,221,	946,	943,
	Sugar & Molasses	9,005,	8,189,	8,326,	11,366,	7,900,
	Tobacco .....	463,	420,	696,	927,	596,
„ „ <i>Agrcltl.</i>	Rice .....	473,	284,	1,108,	957,	1,151,
	Fruits .....	320,	167,	184,	382,	96,
	Wine .....	3,096,	1,582,	1,391,	2,642,	2,005,
	Spirits .....	1,420,	1,279,	754,	2,107,	1,247,
		21,286,	16,740,	16,981,	22,673,	17,217,
	Food .....	15,819,	12,118,	14,066,	11,667,	13,772,
	Grain and Meal..	3,693,	2,044,	2,184,	2,964,	3,097,
	Provisions .....	19,512,	14,162,	16,250,	14,631,	16,869,
	Remainder of Enumerated Articles .....	2,455,	2,134,	1,810,	2,655,	2,171,
	TOTAL ENUMERATED IMPORTS....	106,894,	89,292,	83,202,	97,883,	84,969,
Add for UNENUMERATED IMPORTS (say)		26,723,	22,323,	20,800,	24,471,	21,242,
TOTAL IMPORTS .....		133,617,	111,615,	104,002,	122,354,	106,211,



EXPORTS. — (United Kingdom.) — First Nine Months (*January—September*),  
1860-59-8-7-6.—*Declared Real Value at Port of Shipment of Articles of BRITISH  
and IRISH Produce and Manufactures Exported from United Kingdom.*

(First Nine Months.) BRITISH PRODUCE, &C., EXPORTED.		1860.	1859.	1858.	1857.	1856.
(Unit 000's omitted.)		£	£	£	£	£
MANFRS.— <i>Textile.</i>	Cotton Manufactures..	30,947,	28,957,	24,212,	23,434,	21,689,
	„ Yarn.....	7,378,	6,889,	7,009,	6,682,	5,896,
	Woollen Manufactures	9,463,	9,251,	7,278,	8,824,	7,331,
	„ Yarn.....	2,893,	2,088,	2,097,	2,361,	2,052,
	Silk Manufactures ...	1,607,	1,627,	1,362,	2,243,	1,957,
	„ Yarn.....	205,	157,	140,	301,	223,
	Linen Manufactures...	3,466,	3,456,	3,000,	3,640,	3,530,
	„ Yarn.....	3,169,	1,176,	1,261,	1,259,	943,
		57,328,	53,601,	46,359,	48,744,	43,621,
„ <i>Sewed.</i>	Apparel .....	1,528,	1,540,	1,359,	1,583,	1,254,
	Haberd. and Millnry.	3,113,	3,332,	2,620,	3,261,	2,777,
		4,641,	4,872,	3,979,	4,844,	4,031,
METALS .....	Hardware.....	2,768,	2,835,	2,372,	3,050,	2,664,
	Machinery .....	2,644,	2,739,	2,723,	2,911,	1,901,
	Iron .....	9,229,	9,813,	8,817,	10,760,	9,866,
	Copper and Brass.....	2,283,	1,927,	2,063,	2,333,	1,922,
	Lead and Tin .....	2,006,	2,045,	1,710,	2,133,	1,759,
	Coals and Culm .....	2,534,	2,582,	2,437,	2,449,	2,179,
		21,465,	21,941,	20,122,	23,636,	20,291,
<i>Ceramic Manufcts.</i>	Earthenware and Glass	1,595,	1,438,	1,303,	1,663,	1,401,
<i>Indigenous Mnfrs.</i>	Beer and Ale .....	1,571,	1,637,	1,447,	1,237,	1,120,
	Butter .....	465,	512,	382,	441,	502,
	Cheese .....	82,	94,	62,	88,	100,
	Candles .....	184,	136,	126,	224,	230,
	Salt .....	277,	200,	240,	284,	294,
	Spirits .....	230,	197,	158,	654,	702,
	Soda .....	753,	784,	587,	589,	436,
		3,562,	3,560,	3,002,	3,517,	3,384,
<i>Various Manufcts.</i>	Books, Printed.....	364,	343,	284,	323,	300,
	Furniture .....	166,	171,	194,	214,	138,
	Leather Manufactures	1,626,	1,441,	1,505,	1,769,	1,189,
	Soap .....	193,	158,	160,	186,	214,
	Plate and Watches ...	396,	359,	333,	385,	327,
	Stationery.....	572,	630,	581,	553,	520,
		3,317,	3,102,	3,057,	3,430,	2,688,
Remainder of Enumerated Articles .....		2,951,	2,560,	2,575,	3,027,	3,254,
Unenumerated Articles .....		6,865,	6,963,	5,913,	6,875,	6,236,
TOTAL EXPORTS .....		101,724,	98,037,	86,310,	95,736,	84,906,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Nine Months (Jan.—Sept.) 1860-59-8-7.—Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.

(First Nine Months.)  ENTERED:—	1860.			1859.		1858.		1857.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage. (000's omitted.)	Vessels.	Tonnage (000's omitted.)
	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
<i>Vessels belonging to—</i>									
Russia .....	305	88,	283	269	77,	143	41,	108	24,
Sweden .....	815	126,	154	693	114,	546	87,	402	67,
Norway .....	1,978	430,	217	1,969	433,	1,646	351,	1,573	328,
Denmark .....	2,200	213,	96	1,949	192,	1,724	172,	1,980	189,
Prussia and Ger. Sts. ....	2,861	598,	209	2,692	589,	2,303	517,	2,705	502,
Holland and Belgium ....	1,231	170,	138	1,241	173,	969	148,	1,108	185,
France .....	1,377	115,	83	1,929	156,	2,030	173,	753	58,
Spain and Portugal .....	299	80,	267	311	72,	777	198,	507	125,
Italy & other Eupn. Sts.	732	206,	280	467	131,	97	25,	17	3,
United States .....	1,020	991,	971	871	849,	1,042	967,	940	914,
All other States .....	12	3,	258	16	5,	15	6,	21	9,
United Kingdm. & } Depds.....	12,830	3,020,	235	12,407	2,791,	11,292	2,685,	10,114	2,404,
	14,596	4,206,	288	14,665	3,974,	13,944	3,756,	13,652	3,937,
<i>Totals Entered</i>	27,426	7,226,	263	27,072	6,765,	25,236	6,441,	23,766	6,341,
CLEARED:—									
Russia .....	284	83,	331	282	80,	161	49,	137	32,
Sweden .....	828	129,	155	698	117,	639	112,	544	103,
Norway .....	1,256	228,	181	1,431	277,	1,070	204,	1,342	260,
Denmark .....	2,613	251,	98	2,201	218,	2,215	221,	2,429	241,
Prussia and Ger. Sts. ....	3,651	666,	181	3,757	691,	3,768	657,	3,529	591,
Holland and Belgium ....	1,493	237,	159	1,525	229,	1,613	262,	1,619	297,
France .....	2,858	303,	106	2,864	307,	3,369	355,	3,357	358,
Spain and Portugal .....	271	72,	265	277	67,	956	257,	828	229,
Italy & other Eupn. Sts.	806	232,	288	636	184,	120	32,	12	4,
United States .....	1,150	1,091,	950	903	859,	1,065	1,002,	1,011	973,
All other States .....	12	4,	333	16	5,	12	4,	14	5,
United Kingdm. & } Depds.....	15,222	3,296,	216	14,590	3,034,	14,988	3,155,	14,822	3,103,
	18,732	4,960,	264	18,981	4,895,	18,615	4,625,	19,714	4,867,
<i>Totals Cleared</i>	33,954	8,256,	243	33,571	7,929,	33,603	7,780,	34,536	7,960,



**GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — Computed Real Value for the First Nine Months (January—September), 1860-59-8.**

(Unit 000's omitted.)

(First Nine Months.)	1860.		1859.		1858.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
<b>Imported from:—</b>	£	£	£	£	£	£
Australia .....	4,639,	1,	6,445,	1,	6,277,	1,
So. Amca. and W. } Indies .....	919,	3,783,	1,477,	2,423,	3,102,	2,260,
United States and } Cal. ....	3,791,	796,	6,465,	1,222,	3,761,	141,
	9,349,	4,580,	14,387,	3,646,	13,140,	2,402,
France .....	92,	1,864,	879,	5,498,	609,	1,290,
Hanse Towns, Holl. } & Belg. ....	22,	922,	365,	2,525,	2,238,	464,
Prtgl., Spain, and } Gbrltr. ....	14,	217,	81,	186,	169,	421,
Mlta., Trky., and } Egypt .....	31,	18,	317,	13,	968,	13,
China .....	—	—	—	—	35,	86,
West Coast of Africa	72,	4,	71,	4,	82,	8,
All other Countries...	210,	20,	2,147,	25,	48,	36,
<b>Totals Imported</b>	9,790,	7,625,	18,247,	11,897,	17,289,	4,720,
<b>Exported to:—</b>						
France .....	5,805,	433,	12,215,	307,	7,637,	300,
Hanse Towns, Holl. } & Belg. ....	125,	469,	901,	928,	217,	1,140,
Prtgl., Spain, and } Gbrltr. ....	896,	1,	423,	—	95,	—
	6,826,	903,	13,539,	1,235,	7,949,	1,440,
Ind. and China (viâ } Egypt) .....	1,076,	6,767,	234,	12,802,	113,	3,494,
Danish West Indies...	6,	22,	137,	6,	9,	73,
United States .....	7,	2,	10,	4,	135,	—
South Africa .....	2,	—	2,	5,	64,	3,
Mauritius .....	—	—	—	1,	107,	26,
Brazil .....	342,	120,	69,	89,	236,	97,
All other Countries...	196,	34,	505,	31,	15,	31,
<b>Totals Exported</b>	8,455,	7,849,	14,496,	14,173,	8,628,	5,164,
<b>Excess of Imports ...</b>	1,335,	—	3,751,	—	8,661,	—
„ <b>Exports ...</b>	—	224,	—	2,276,	—	444,

## REVENUE.—(UNITED KINGDOM.)—30TH SEPT., 1860-59-8-7.

*Net Produce in YEARS and QUARTERS ended 30TH SEPT., 1860-59-8-7.*

[Unit 000's omitted.]

QUARTERS, ended 30th Sept.	1860.	1859.	1860.		Corresponding Quarters.	
			Less.	More.	1858.	1857.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	5,888,	6,576,	689,	—	6,115,	5,481,
Excise .....	5,089,	5,549,	460,	—	5,085,	5,298,
Stamps .....	2,053,	1,937,	—	116,	1,831,	1,752,
Taxes .....	166,	146,	—	20,	141,	159,
Post Office .....	800,	780,	—	20,	745,	730,
	13,996,	14,988,	1,149,	156,	13,917,	13,420,
Property Tax .....	2,281,	1,874,	—	407,	2,454,	4,932,
	16,277,	16,862,	1,149,	563,	16,371,	18,352,
Crown Lands .....	65,	62,	—	3,	61,	61,
Miscellaneous .....	316,	340,	24,	—	532,	269,
<i>Totals</i> .....	16,658,	17,264,	1,173,	566,	16,964,	18,682,
			Net Increase £606,61			

YEARS, ended 30th Sept.	1860.	1859.	1860.		Corresponding Years.	
			Less.	More.	1858.	1857.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	23,396,	24,809,	1,412,	—	23,473,	23,106,
Excise .....	20,070,	18,685,	—	1,385,	17,731,	17,516,
Stamps .....	8,267,	7,988,	—	279,	7,728,	7,346,
Taxes .....	3,257,	3,190,	—	67,	3,136,	3,099,
Post Office .....	3,370,	3,255,	—	115,	3,025,	2,930,
	58,360,	57,927,	1,412,	1,846,	55,093,	53,997,
Property Tax .....	10,310,	5,686,	—	4,624,	7,853,	15,753,
	68,670,	63,613,	1,412,	6,470,	62,946,	69,750,
Crown Lands .....	290,	282,	—	8,	277,	278,
Miscellaneous .....	1,849,	2,096,	246,	—	1,939,	1,147,
<i>Totals</i> .....	70,809,	65,991,	1,658,	6,478,	65,161,	71,175,
			Net Increase £4,819,680			



REVENUE (UNITED KINGDOM).—QUARTER ENDED 30TH SEPT., 1860:—  
APPLICATION.

*An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th Sept., 1860; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th June, 1860, viz.:—	£
Great Britain .....	—
Ireland .....	£639,611
	<u>639,611</u>
Income received in the Quarter ended 30th September, 1860, as shown on preceding page .....	16,658,166
Amount received in the Quarter ended 30th September, 1860, in repayment of Advances for Public Works, &c. ....	352,524
	<u>£17,650,301</u>
Balance, being the deficiency on 30th September, 1860, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st December, 1860, and for which Exchequer-bills (Deficiency) will be issued in that Quarter .....	3,072,016
	<u>£20,722,317</u>

Paid:—

Net Amount applied out of the Income for the Quarter ended 30th September, 1860, in redemption of Exchequer-bills (Deficiency), for the Quarter ended 30th June, 1860, viz.:—	£
Total Deficiency .....	£1,589,566
Deduct, Redeemed by Sinking Fund.....	396,000
	<u>1,193,566</u>
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 30th September, 1860 .....	12,042,378
Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th September, 1860, viz.:—	
Interest of the Permanent Debt .....	£5,572,017
Terminable Debt .....	625,111
The Civil List .....	100,759
Other Charges on Consolidated Fund .....	439,113
Advances for Public Works, &c. ....	265,431
Sinking Fund .....	228,042
	<u>7,280,473</u>
<i>Surplus Balance</i> in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th September, 1860, viz.: .....	205,900
	<u>£20,722,317</u>

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Third Quarter of 1860.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday, 1860.		Weekly Average. (Per Impl. Quarter.)					
		Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
July	7 .....	57 9	34 —	26 5	41 3	46 6	41 4
"	14 .....	57 7	33 5	25 8	41 3	46 6	43 7
"	21 .....	56 6	32 5	26 4	40 8	46 7	39 4
"	28 .....	57 —	33 1	26 4	37 5	45 1	41 1
Average for July .....		57 2	33 2	26 2	40 1	46 2	41 4
August	4 .....	58 7	33 —	26 6	45 6	46 9	41 3
"	11 .....	59 6	34 —	26 1	44 9	46 5	41 —
"	18 .....	59 6	32 10	28 2	41 9	47 1	44 —
"	25 .....	60 1	34 9	27 1	40 4	47 7	43 9
Average for August .....		59 5	33 7	26 11	43 1	46 11	42 6
Sept.	1 .....	60 11	33 3	28 2	40 7	47 10	44 5
"	8 .....	62 10	35 2	27 2	39 4	49 3	41 4
"	15 .....	62 11	37 10	27 —	42 4	50 1	38 7
"	22 .....	58 3	38 5	25 9	40 7	49 6	37 11
"	29 .....	56 11	39 3	25 3	37 10	49 6	39 1
Average for September ...		60 4	36 9	26 8	40 1	49 2	40 3
Average for the Quarter ..		59 1	34 8	26 7	41 —	47 7	41 3

RAILWAYS.—PRICES, *July—September, —and TRAFFIC July—September, 1860.*

Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 39 Weeks. unit 000's omitted.		Traffic pr. Mile pr. Wk. 39 Weeks.		Dividends per Cent. for Half Years.		
	1 Sp.	1 Au.	2 Jy.	'60.	'59.	'60.	'59.	'60.	'59.	30 Jn. '60.	30 Dec. '59.	30 Jn. '59.
				No.	No.	£	£	£	£	s. d.	s. d.	s. d.
Lond. & N. Westn.	100 $\frac{1}{4}$	102 $\frac{1}{2}$	101 $\frac{3}{4}$	950	936	3,146,	2,917,	84	79	50 —	52 6	42 6
Great Western ....	70 $\frac{3}{4}$	72	69 $\frac{1}{2}$	470	466	1,286,	1,223,	70	67	30 —	35 —	20 —
Great Northern ....	115	116 $\frac{3}{4}$	115	283	283	988,	926,	89	84	45 —	70 —	33 9
Eastern Counties.	54	56	56 $\frac{1}{2}$	499	499	1,094,	973,	56	50	21 3	30 9	19 1
Brighton .....	110 $\frac{1}{2}$	112 $\frac{1}{2}$	111 $\frac{1}{2}$	224	206	657,	626,	75	77	50 —	70 —	50 —
South-Eastern ....	87 $\frac{1}{4}$	86 $\frac{1}{2}$	85 $\frac{1}{2}$	306	302	872,	825,	73	70	46 8	60 —	40 —
South-Western ....	92	92 $\frac{3}{4}$	94 $\frac{1}{2}$	388	339	727,	668,	48	50	42 6	52 6	42 6
	90	91 $\frac{1}{4}$	90 $\frac{1}{2}$	3,120	3,031	8,769,	8,158,	72	68	40 9	53 11	35 5
Midland .....	125	124 $\frac{1}{2}$	118	614	614	1,529,	1,368,	64	57	65 —	60 —	42 6
Lancsh. and York.	109 $\frac{1}{2}$	107 $\frac{3}{4}$	105	395	395	1,464,	1,304,	95	85	55 —	50 —	45 —
Sheffield and Man.	43 $\frac{1}{2}$	43	40 $\frac{1}{2}$	173	173	446,	407,	66	60	10 —	10 —	4 —
North-Eastern ....	97 $\frac{1}{2}$	96 $\frac{1}{2}$	96 $\frac{1}{2}$	764	764	1,479,	1,383,	49	46	52 6	41 8	30 10
South Wales .....	68	68 $\frac{1}{4}$	68	171	171	282,	264,	42	39	20 —	27 6	22 6
	88 $\frac{1}{2}$	88	85 $\frac{3}{5}$	2,117	2,117	5,200,	4,726,	63	57	40 6	37 10	28 11
Caledonian .....	92 $\frac{1}{8}$	95 $\frac{1}{4}$	93 $\frac{3}{4}$	219	219	404,	399,	47	46	45 —	50 —	37 6
Gt. S. & Wn. Irlnd.	113	116	114 $\frac{1}{2}$	329	249	313,	273,	24	28	50 —	50 —	50 —
Gen. aver. ....	91 $\frac{1}{3}$	92	90 $\frac{3}{4}$	5,785	5,616	14,686,	13,556,	65	62	41 7 $\frac{1}{2}$	47 2	34 3

Consols.—Money Prices 1st September, 93 $\frac{1}{8}$  to  $\frac{1}{4}$ ,—1st August, 93 $\frac{1}{2}$  to  $\frac{5}{8}$ ,—2nd July, 93 $\frac{3}{8}$  to  $\frac{1}{2}$ .  
 Exchequer Bills.                      „                      3s. pm.,                      „                      5s. pm.                      „                      2s. pm.,



BANK OF FRANCE.—*Abstract of Official Returns.*—25 francs = £.I.—LIABILITIES (*Passif*).

1 DATES.	2 3 4 Billets to Bearer. (Circulation.)			5 6 7 Billets to Order. (Bank Post Bills.)			8 9 10 11 Current Accounts. (Deposits.)				12 Other Liabili-	13 Total Liabi-
	Paris.	Branch.	Total.	Paris.	Récépissés.	Total.	Trea- sury.	Paris.	Branch.	Total.	ties.	ties.
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1860.												
Aug. 9	—	—	30·40	·33	·44	·77	5·29	8·88	1·40	15·57	8·91	55·0
Sept. 13	—	—	29·90	·30	·43	·73	5·38	8·15	1·53	15·06	8·89	54·
Oct. 11	—	—	29·94	·31	·47	·78	4·75	7·19	1·33	13·27	9·18	53·

II.—ASSETS (*Actif*).

14 DATES.	15 16 17 Coin and Bullion.			18 19 20 Portfolio. (Discounts.)			21 Ad- vances on Ingots.	22 Advances on Public Stocks.	23 Advances on Shares.	24 Other Assets.	25 Total Assets.
	Paris.	Branch.	Total.	Paris.	Branch.	Total.	Total.	Total.	Total.		
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1860.											
Aug. 9	6·52	15·45	21·97	9·11	10·99	20·10	·18	1·66	2·10	8·64	55·
Sept. 13	5·98	15·26	21·24	8·65	10·99	19·64	·19	1·66	3·13	8·72	54·
Oct. 11	4·69	13·71	18·40	9·53	11·28	20·81	·31	1·68	3·20	8·77	53·

BANKS in BOSTON, NEW YORK, PHILADELPHIA and NEW ORLEANS, 1860.  
*Monthly Averages deduced from Weekly Official Returns.* 85 = £.

1860.  Averages of Months of	Boston.				New York.				Rates of Discount in <i>New York</i> on Prime endorsed, 60 d. Bills.  Pr.ct. pr.ann.
	Liabilities.		Assets.		Liabilities.		Assets.		
	Circl.	Deps.	Loans.	Specie.	Circl.	Deps.	Loans.	Specie.	
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	
June .....	1·41	4·12	12·53	1·25	1·76	20·67	25·15	4·73	5 @ 6
July .....	1·47	4·05	12·94	1·13	1·75	21·15	25·59	4·64	4½ „ 5
Aug. ....	1·40	3·82	12·92	1·02	1·83	21·12	26·02	4·24	5 „ 6½

1860.	Philadelphia.				New Orleans.			
	Liabilities.		Assets.		Liabilities.		Assets.	
	Circl.	Deps.	Loans.	Specie.	Circl.	Deps.	Loans.	Specie.
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
June .....	·55	3·13	5·39	·86	2·29	3·27	3·47	2·16
July .....	·57	3·18	5·37	·87	2·50	2·89	3·41	1·94
Aug. ....	·57	3·18	5·38	·95	1·90	2·82	4·00	1·97

## BANK OF ENGLAND.—WEEKLY RETURN.

*Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the THIRD QUARTER (July—September) of 1860.*

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1860. Pr. ct. p. an
30,23	July 4 ...	11,02	3,46	15,75	21,97	24 May, 4.
29,94	„ 11 ...	11,02	3,46	15,46	21,91	
29,71	„ 18 ...	11,02	3,46	15,24	22,17	
29,61	„ 25 ...	11,02	3,46	15,13	22,11	
29,50	Aug. 1 ...	11,02	3,46	15,02	22,07	
29,31	„ 8 ...	11,02	3,46	14,83	21,71	
29,28	„ 15 ...	11,02	3,46	14,81	21,57	
29,42	„ 22 ...	11,02	3,46	14,95	21,36	
29,59	„ 29 ...	11,02	3,46	15,11	21,14	
29,91	Sept. 5 ...	11,02	3,46	15,44	21,43	
29,96	„ 12 ...	11,02	3,46	15,47	20,81	
30,07	„ 19 ...	11,02	3,46	15,60	20,86	
29,96	„ 26 ...	11,02	3,46	15,48	20,83	

## BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES. (Wdnsdys.)	Assets.				Totals of Liabi- ties and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
14,55	3,30	8,21	13,75	,69	July 4	9,82	21,67	8,26	,74	40,50
14,55	3,34	4,12	15,39	,74	„ 11	9,71	19,62	8,03	,77	38,14
14,55	3,38	3,49	15,27	,76	„ 18	9,72	19,42	7,54	,77	37,45
14,55	3,39	3,96	14,83	,71	„ 25	9,77	19,41	7,50	,78	37,45
14,55	3,42	4,23	14,72	,71	Aug. 1	9,76	19,71	7,43	,74	37,64
14,55	3,51	4,32	14,00	,71	„ 8	9,80	19,48	7,60	,78	37,61
14,55	3,52	5,96	12,79	,77	„ 15	9,80	19,34	7,71	,74	37,59
14,55	3,53	5,60	12,85	,72	„ 22	9,64	19,82	8,06	,73	38,26
14,55	3,48	5,95	14,17	,74	„ 29	9,64	20,00	8,45	,80	38,89
14,55	3,78	6,50	13,43	,72	Sept. 5	9,66	20,10	8,48	,73	38,98
14,55	3,78	6,84	13,46	,74	„ 12	9,66	19,81	9,15	,76	39,38
14,55	3,78	9,96	13,18	,75	„ 19	9,66	19,57	9,21	,78	39,23
14,55	3,79	7,09	12,97	,72	„ 26	9,66	19,56	9,13	,77	39,13



## CIRCULATION.—COUNTRY BANKS.

*Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the THIRD QUARTER (July—September) of 1860 ; and in SCOTLAND and IRELAND, at the Three Dates, as under.*

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4·40)	Joint Stock Banks. (Fixed Issues, 3·30.)	TOTAL. (Fixed Issues, 7·70.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2·75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6·35.)
1860.	Mlns. £	Mlns. £	Mlns. £	1860.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
July 7	3,51	3,01	6,52							
„ 14	3,49	3,03	6,52							
„ 21	3,46	2,99	6,45							
„ 28	3,40	2,94	6,34	July 28	1,47	2,59	4,06	3,45	2,95	6,30
Aug. 4	3,38	2,92	6,30							
„ 11	3,36	2,93	6,29							
„ 18	3,34	2,93	6,27							
„ 25	3,32	2,92	6,24	Aug. 25	1,53	2,58	4,11	3,27	2,91	6,18
Sept. 1	3,31	2,93	6,24							
„ 8	3,29	2,92	6,21							
„ 15	3,29	2,92	6,21							
„ 22	3,33	2,96	6,29	Sept. 22	1,47	2,63	4,10	3,25	2,91	6,16

FOREIGN EXCHANGES.—*Quotations as under, London on Paris, Hamburg & Calcutta, —and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
3 m. d.				3 m. d.			60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.	pr. oz.	
1860.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
July 7 ..	25·40	0·2	—	par	13·5½	0·1	—	109¾	26	24½	57	1 p.	61½
„ 21 ..	37½	„	—	„	5¾	„	—	109⅞	„	„	„	„	61⅞
Aug. 4 ..	37	„	—	„	6	„	—	109	„	„	„	„	„
„ 18 ..	40	„	—	„	6½	„	—	109⅞	„	„	„	„	„
Sept. 8 ..	40	0·1	—	„	6¼	„	—	„	„	„	„	„	61½
„ 22 ..	40	„	—	„	1½	0·3	—	110⅛	„	„	„	„	„

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